Getting Started With HyperCard™

Getting Started

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Getting Started With HyperCard™

Getting Started

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About This Book

HyperCard™ is a software package that lets you control the way you use text, graphics, and sound on your Macintosh™ computer. This book shows you how to start using HyperCard.

The first part of the book teaches you how to install HyperCard and explore the files that come with it. The last few chapters show you how to create "smart" documents called *stacks*. Stacks can do many of the things ordinary Macintosh programs can do, and more, because you can decide for yourself how you want your stacks to work—without knowing a word of programming.

By the time you finish this book, you'll be ready to start using HyperCard in ways no one else may ever have imagined.

What you need to know to use this book

This book is for people who have never used HyperCard before. However, the book does assume that you know how to perform certain basic tasks with your Macintosh computer. You should know how to

- Use the mouse and keyboard
- Choose commands from a menu
- Use command keys
- Copy files and disks
- Open disks, folders, applications, and documents
- Perform simple editing tasks, including selecting, copying, and pasting text
- Use the directory dialog box to locate files

If you need to learn more about these basic tasks, consult the books and disks that came with your Macintosh.

Different people learn in different ways

HyperCard comes with several books and disks designed to make you productive in a hurry and help you learn the software thoroughly. Depending on how comfortable you feel working with the Macintosh and how often you've used earlier versions of HyperCard, you may want to skip all the learning materials or read every single word. Fortunately, the materials are designed to handle the needs of a wide variety of users.

The beginner

If you don't yet have much experience using Macintosh computers, this book was written with you in mind. As long as you know the basic Macintosh skills described in the previous section, you should do fine. Follow this plan:

- Read this book, starting with Chapter 1. The first five chapters contain the most important information for beginners.
- You may want to skip the "Experts Only" sections at the ends of most of the chapters.
- Play with the sample stacks.
- If you have questions that aren't answered by this book, consult the *HyperCard Reference.*

The confident rookie

If you've never used HyperCard before but are comfortable using the Macintosh, you can zoom through this book using this plan:

- Browse through Chapter 1, "An Optional Introduction."
- Speed through the installation procedures in Chapter 2, reading just the boldface steps.
- Continue reading the rest of the chapters in this book, scanning the introductory material, following the boldface steps, and looking at the pictures.
- Try the "Experts Only" sections at the ends of most of the chapters.

The experienced but impatient Macintosh user

If you're already expert in several Macintosh application programs and you would prefer to learn by exploring on your own, try this strategy:

- Read "Quick Start" in the booklet *About HyperCard* for a fast introduction.
- Play with the sample stacks. If you feel truly adventurous, set your user level to the maximum and start dissecting the stacks.

- If you need help, consult the HyperCard Tour stack (described in Chapter 3), the HyperCard Help stack (described in Chapter 4), and the *HyperCard Reference.*

The HyperCard maven

If you have been using previous versions of HyperCard, you can skip most of the documentation by following this course:

- Install the new version of HyperCard without destroying the old, as described in Chapter 2, "Installing HyperCard," and the Appendix, "Replacing an Earlier Version of HyperCard," in this book.
- Read about the new features in the Appendix, "What's New in HyperCard 2.0," of the *HyperCard Reference.*

How to use this book

You should use this book while you're sitting in front of your Macintosh. It's a manual for the playful.

Every chapter except the first and the last includes simple exercises made up of numbered steps. Each step consists of a short instruction in boldface type followed (usually) by further explanation in plain type. Depending on your level of expertise with the Macintosh, you may find that you can speed through some or all of the chapters by reading just the boldface steps and looking at the pictures. Of course, you can stop and read the more detailed explanations in plain type whenever you need to.

Most chapters end with an "Experts Only" section, which contains experiments designed to teach you more about the techniques you've learned in that chapter. The "Experts Only" section is optional; feel free to skip it if you wish.

Each chapter builds on what you've learned in previous chapters, so it's important that you start with Chapter 1 (or Chapter 2) and work through the book sequentially:

- Chapter 1, "An Optional Introduction," reveals the secrets of HyperCard: what it is, what it does, and how it looks.
- Chapter 2, "Installing HyperCard," tells you how to install HyperCard by using the Installer program.
- Chapter 3, "Browsing Through Stacks," introduces HyperCard navigation techniques, showing you how to move around in the stacks that come with HyperCard.
- Chapter 4, "More Basics," discusses the other basic HyperCard skills, from typing to getting help.
- Chapter 5, "Exploring," shows you useful techniques for exploring HyperCard stacks.
- Chapter 6, "Tinkering with Stacks," shows you how stacks are put together and how to modify them.
- Chapter 7, "Creating New Stacks," shows you three ways to create new stacks.
- Chapter 8, "Onward," offers suggestions for further experimentation and ideas for adding power and pizzazz to your stacks.
- The Appendix, "Replacing an Earlier Version of HyperCard," describes special installation considerations for those who already have HyperCard on their hard disks.

Terms appear in *italics* in this book when they're first defined. These words are also defined in the glossary.

About the other learning materials

In addition to this book, the following learning materials are included in the HyperCard package:

About HyperCard: A brief overview of the HyperCard documentation, including instructions for experienced Macintosh users who prefer to learn by exploring on their own.

Using HyperCard Without a Hard Disk: A booklet that describes how to learn and use HyperCard without a hard disk.

HyperCard Tour: A stack that introduces the basic HyperCard concepts by showing you what HyperCard can do. (This book describes how to take the tour.)

HyperCard Help: A stack that answers your questions while you're using HyperCard. (This book shows you how to use the HyperCard Help stack.)

HyperCard Reference: A book you can consult to answer questions about HyperCard as they come up.

HyperTalk Beginners Guide: A book that teaches you how to use HyperCard's programming language by helping you create a new stack, one step at a time.

HyperTalk Reference: A stack that provides easy access to information about HyperTalk™ for people who use HyperCard's programming language.

An Optional Introduction

This chapter introduces HyperCard™. For many people, spending a few minutes now learning what HyperCard is and how it's used will save a lot of confusion later.

However, if you can't wait to get your hand on the mouse, you can immediately skip to Chapter 2, "Installing HyperCard." (If you're already skilled with the Macintosh™ computer and you want to go as quickly as you can, read only the boldface, numbered steps, starting in Chapter 2.)

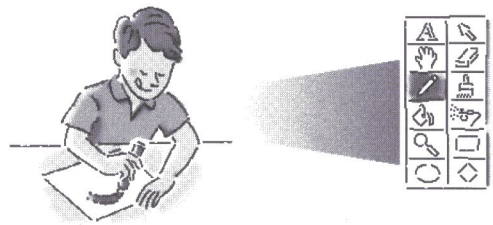
△ **Important:** For this chapter only, there's no need to use your Macintosh. You'll begin to use the computer in the next chapter. △

Question: Which one of these people just discovered HyperCard?

Answer: The curious, excited one on the right. He's excited because HyperCard sounds like it can do almost anything. He's curious because—like most people who've never used HyperCard—he's not really sure what "almost anything" means.

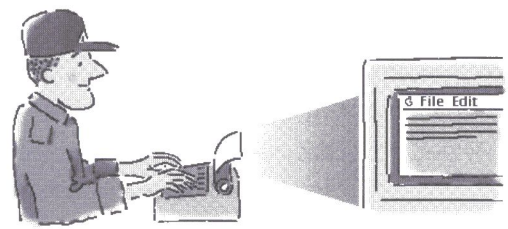
What is HyperCard?

Most software is inspired by something outside the computer world. For instance, painting programs were inspired by the artist's tools, and word processors were inspired by the typewriter. But what about HyperCard?



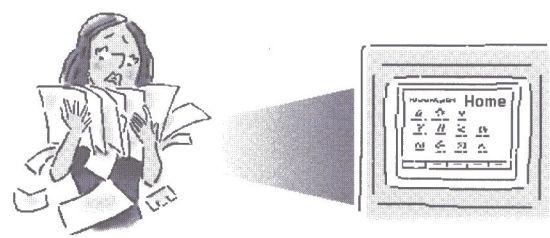
Artist's tools

Painting program



Typewriter

Word processor

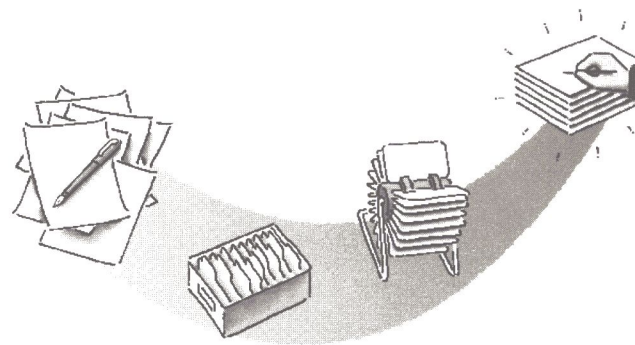


What?

HyperCard

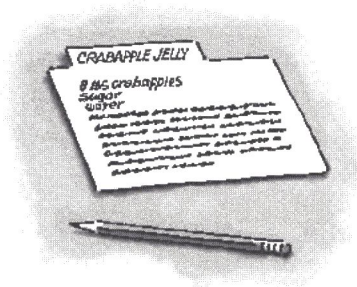
HyperCard can do what index cards do

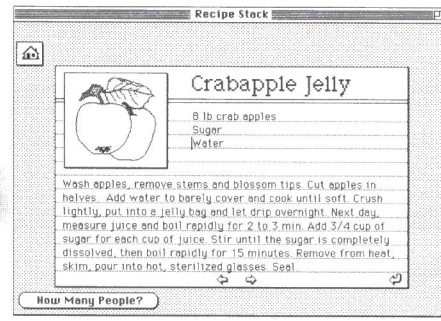
Though you might not guess it at first, HyperCard is an electronic descendant of the scratch pad, the index card, and the circular card file.



You can think of HyperCard as an electronic stack of index cards. Every HyperCard file is called a *stack,* and every HyperCard stack consists of one or more electronic *cards.* You use many HyperCard stacks just as you would use stacks of index cards—to catalog a music collection, preserve your favorite recipes, or record addresses and phone numbers. Later you'll learn that HyperCard stacks can do things no one would ever dream of doing with paper index cards—like figure your taxes or control a mainframe computer.

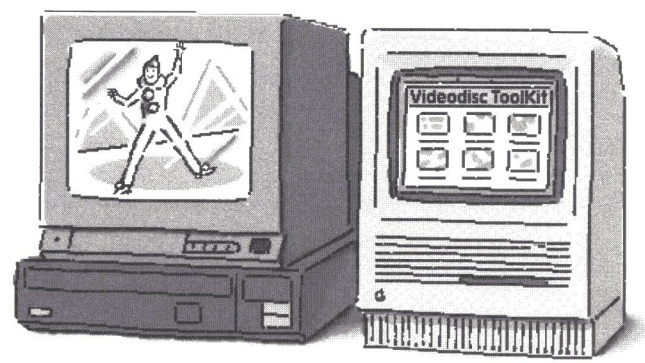
But even when HyperCard stacks are used for the same purposes as ordinary index cards, they can do much more than the paper versions ever could. For example, many stacks are designed to look like preprinted forms. In addition to allowing you to fill in the blanks, the stacks can check to make sure you've filled in the information correctly. Better yet, if the forms require some math, HyperCard can do the calculations for you. Imagine an expense report that figured its own totals or a recipe card that could tell you the proportions for a triple batch of crabapple jelly.




Recipe Stack
Crabapple Jelly
8 lb crab apples
Sugar
Water
Wash apples, remove stems and blossom tips. Cut apples in halves. Add water to barely cover and cook until soft. Crush lightly, put into a jelly bag and let drip overnight. Next day, measure juice and boil rapidly for 2 to 3 min. Add 3/4 cup of sugar for each cup of juice. Stir until the sugar is completely dissolved, then boil rapidly for 15 minutes. Remove from heat, skim, pour into hot, sterilized glasses. Seal
How Many People?

HyperCard can do much more

Because HyperCard is on a computer, you can make its cards do all kinds of things that aren't possible with real index cards. HyperCard's cards can contain games, calculators, and animations. With some extra equipment, HyperCard's cards can also control other pieces of equipment, including other computers. For example, you can use your Macintosh to control a multimedia show on a laser disc player.



HyperCard for the casual and the ambitious

Because people have different needs and abilities, HyperCard allows you to use it in the manner most appropriate to your own situation. You'll probably start using HyperCard by exploring stacks created by other people. Then, if you like, you can learn how to make your own.

Using stacks

As long as you know how to use the mouse, you can start exploring stacks a minute after you install HyperCard. Spend an hour or two with the first few chapters in this book and you'll learn the basic HyperCard skills, ranging from finding a particular card in an enormous stack to using HyperCard's sophisticated stack navigation tools.

Making your own

If you can't find a stack that does what you want, you can create your own. The last half of this book brings you to the point where you can create your own stacks for simple reports or catalogs. You might think you'd need to be a programmer to create your own stacks, but all you need is a sense of design and a few technical skills. You can create an amazing variety of stacks by dragging components with the mouse and using HyperCard's Paint tools.

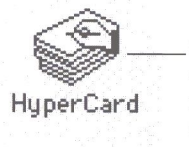
If you have even greater ambitions, HyperCard has still more to offer. You can learn HyperTalk™ a programming language that looks a lot like English, to create stacks of your own.

But if you don't like the idea of learning how to program, don't worry—you can use HyperCard well without knowing a single word of HyperTalk. This book won't require you to learn anything about programming or HyperTalk. (However, if you do want to learn more about HyperTalk after you've finished this book, you can read the *HyperTalk Beginner's Guide.*)

You already know a lot about HyperCard

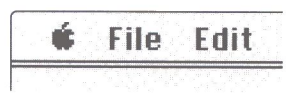
Because HyperCard gives you so much flexibility—such as the power to create your own software by creating new stacks—you may think it's mysterious or difficult to learn. The truth is that if you've used the Macintosh before, you already know much of what you need to use HyperCard. Here are some of the ways HyperCard resembles other software:

Starts in typical way.

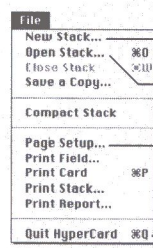


Can be opened by double-clicking its icon or the icon of one of its files.

Typical menu bar.



Many familiar commands.



Creates new files.

Opens existing files.

Sets the page style.

Quits the program.

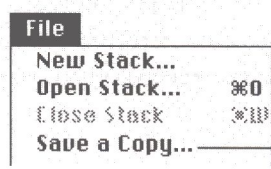
Standard editing techniques for text and paint.

Painting tools similar to those in many other application programs.

A few differences

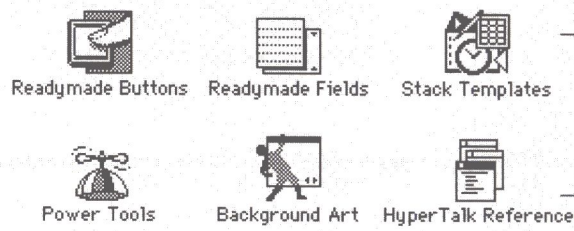
While most of the techniques you use in HyperCard will seem familiar, some things are different:

No Save command.



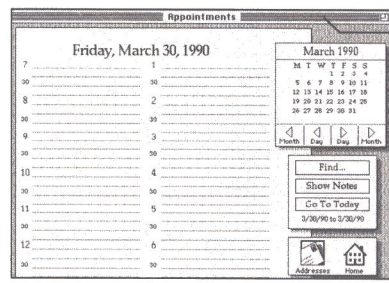
HyperCard saves your files for you. You can put a copy of the file away for safekeeping under a different name by using the Save a Copy command.

Alternative method of opening files.



In addition to using the Open command, you can click buttons to open files.

Windows look different from many other Macintosh windows.



Sometimes title bar may not be visible.

Windows have no scroll bars.

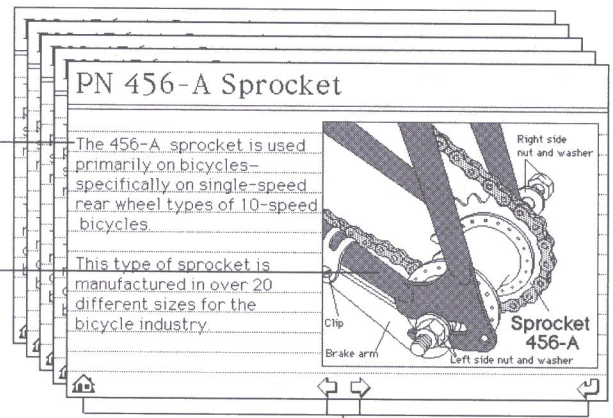
HyperCard in its own terms

So far in this chapter you've learned about HyperCard by comparing it to real-world index cards and to other programs. Here's a quick look at some of HyperCard's main parts and the terms it uses to describe them:

Each HyperCard file is called a *stack*, and each stack contains one or more *cards*. Each card may contain three elements:

Fields. You can type text in fields.

Paint. You can use standard paint tools to create graphics.


PN 456-A Sprocket
The 456-A sprocket is used primarily on bicycles—specifically on single-speed rear wheel types of 10-speed bicycles.
This type of sprocket is manufactured in over 20 different sizes for the bicycle industry.
Right side nut and washer
Chip
Brake arm
Left side nut and washer
Sprocket 456-A

Buttons. You can click buttons to make things happen.

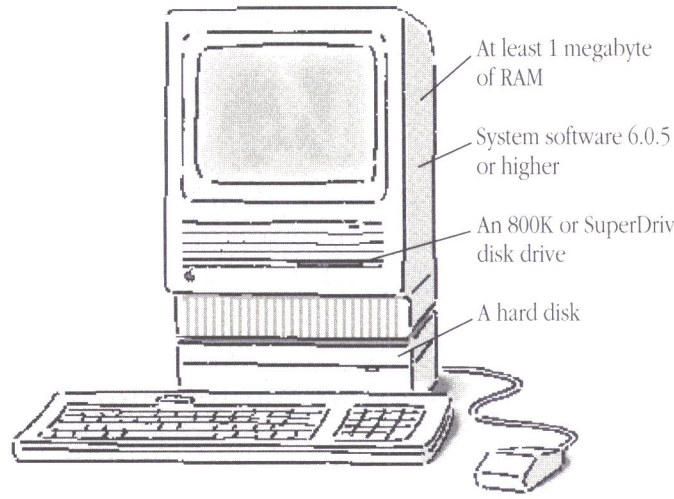
Installing HyperCard

Before you begin using HyperCard, and before you begin the exercises in this book, you need to install the software.

▲ **Warning:** The installation procedure described in this chapter works only if you have a hard disk. If you don't, refer to the booklet *Using HyperCard Without a Hard Disk.* ▲

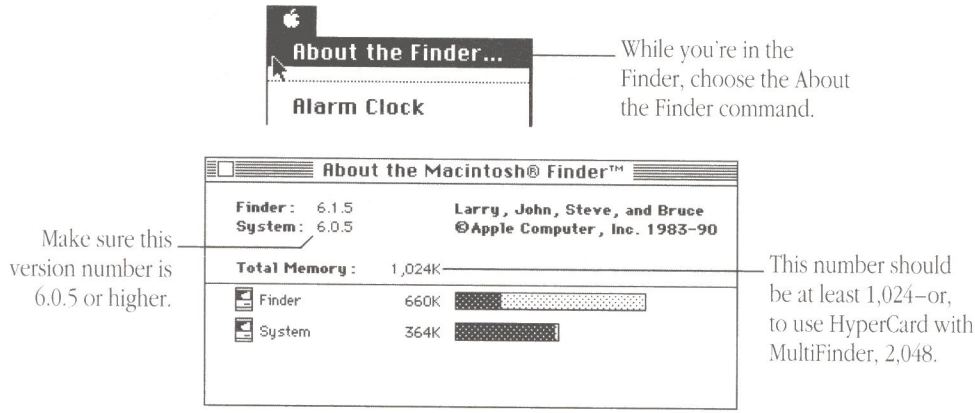
What you need to run HyperCard

HyperCard runs only on certain Macintosh computers. Make sure yours has all the features listed here:



❖ *Note:* HyperCard runs most efficiently on a computer system that includes a hard disk. However, if you have a second 800K or SuperDrive™ disk drive instead of a hard disk, you can run HyperCard by following the instructions in the booklet *Using HyperCard Without a Hard Disk.* ❖

If you're not sure whether you have the right system software or enough memory, choose the About the Finder command from the Apple menu. (The About the Finder command appears only when you're in the Finder.™)


About the Finder...
Alarm Clock
While you're in the Finder, choose the About the Finder command.
About the Macintosh® Finder™
Finder: 6.1.5
System: 6.0.5
Larry, John, Steve, and Bruce
©Apple Computer, Inc. 1983-90
Total Memory: 1,024K
Finder 660K
System 364K
Make sure this version number is 6.0.5 or higher.
This number should be at least 1,024–or, to use HyperCard with MultiFinder, 2,048.

In general, you can run HyperCard if you have a Macintosh made in 1986 or later, using system software 6.0.5 (from 1990) or later. If necessary, your authorized Apple dealer can help you add memory to your computer or upgrade your system software to a later version.

For more information about using HyperCard with MultiFinder,™ see Chapter 1 of the *HyperCard Reference.*

Installing HyperCard on a hard disk

To install HyperCard on your hard disk, you need to use both the Installer program that's on the startup disk for your Macintosh (either *System Tools* or *System Startup*) and the HyperCard Installer Script included in the HyperCard package. The Installer will copy the necessary files to your hard disk and place them in the appropriate folders. It will also install some fonts in your System file.

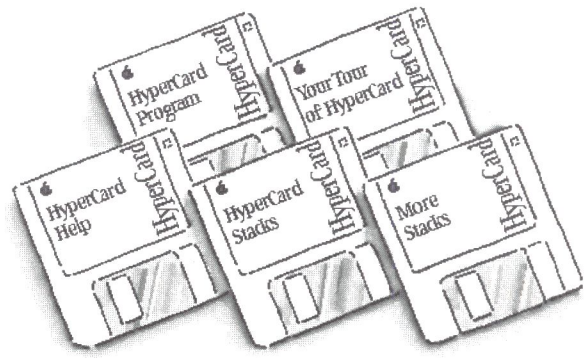
△ **Important**: If you have already installed an earlier version of HyperCard, you should follow the instructions in the next two sections and then read the Appendix of this book to see what to do with your old files. △

Getting the disks ready

Before you begin, get all the necessary disks and lock them:

1. **Find the five original HyperCard disks.**

   The disks contain the program, help files, sample files, and HyperCard Installer Script.

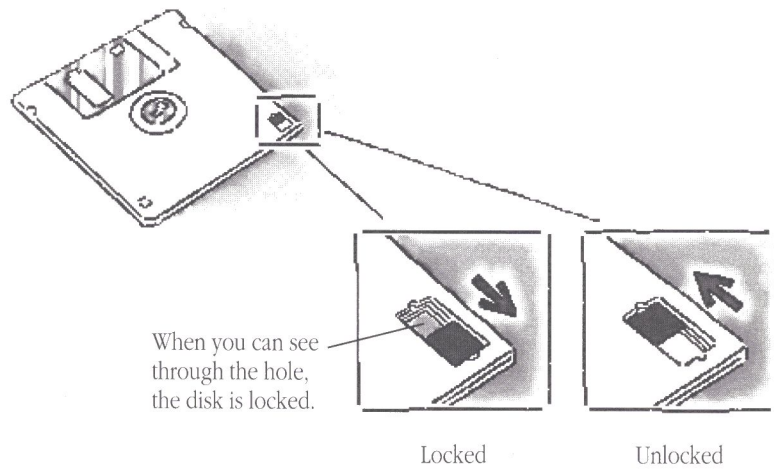


2. **Find your Macintosh System Startup disk (version 6.0.5 or later). The startup disk is called either *System Tools* or *System Startup*.**

   The startup disk contains the Installer program, which you need to complete the installation. If you received HyperCard with a new Macintosh, the correct system disk came with the computer. If you purchased HyperCard separately, you'll need to find the startup disk. If you can't find it, ask your authorized Apple dealer or user group for help.

3. **Use your thumbnail or a ballpoint pen to lock each of the six disks.**

   Before you start copying files, make sure you lock your original disks so you don't accidentally change or delete any of the files on them. You can experiment with greater confidence if you know you can get your original files back from your locked disks.



Using the Installer

In this section you'll start up your computer with the system startup disk and run the Installer.

Getting ready: Shut down your Macintosh if it's running.

1. **Insert the startup disk.**

   To run the Installer, you need to start up from the startup disk for system software version 6.0.5 or higher (called either *System Tools* or *System Startup*). The Installer will not work properly with earlier versions of the system software.

2. **Start up your computer.**

3. **Eject the startup disk.**

   Drag its icon to the Trash. The disk is ejected, but its dimmed icon remains on the desktop.

   If you have two 3.5-inch disk drives, you don't have to eject the startup disk.

4. **Insert the *HyperCard Program* disk and double-click its icon to open it.**

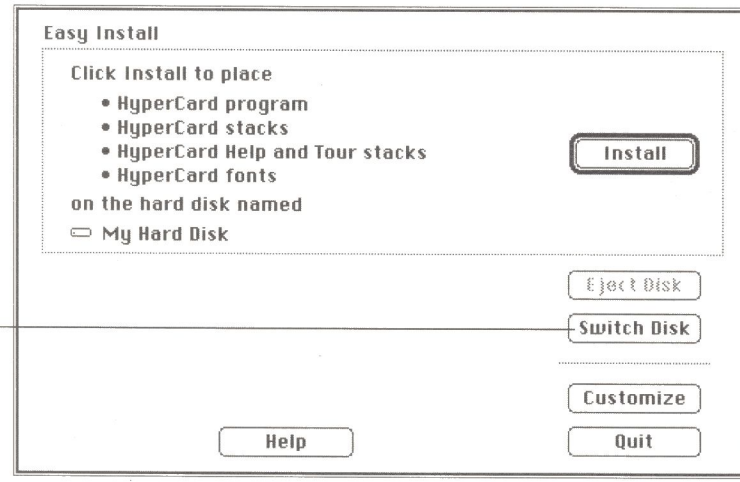
5. **Double-click the HyperCard Installer Script icon.**

   If you're performing the installation with a single disk drive, the Installer will eject the *HyperCard Program* disk and ask you to insert the startup disk instead; then it will ask you to do the reverse. It may repeat these requests several times.

   Finally, the Installer will display the HyperCard Installer Script dialog box.

6. **Click OK.**

7. **Follow the directions on your screen.**



Click here to choose the disk on which HyperCard will be installed. (This is only necessary when you have more than one hard disk.)

After you click Install, the Installer will ask you to insert each of the HyperCard disks in turn.

8. **When you're finished, click Quit.**

9. **Choose Restart from the Special menu.**

HyperCard is now installed on your hard disk in a folder called New HyperCard Folder.

Browsing Through Stacks

If you've already installed HyperCard according to the instructions in Chapter 2, you're ready to get going.

By the time you're finished with this chapter, you'll know how to start up and quit HyperCard and how to move from stack to stack and from card to card. In other words, you'll learn to *browse* through stacks.

△ **Important**: If you're in a hurry, try reading only the boldface, numbered steps. The plain text below these steps contains further explanation if you need it. △

Getting ready

The exercises in this book assume that no one has changed any of the HyperCard files since HyperCard was installed. If you have already made some changes and you don't need to keep them, simply repeat the installation procedure in Chapter 2. If you do need to keep the changes, rename the New HyperCard Folder before repeating the installation procedure. You'll then have two versions of Hypercard in your hard disk: your own version in a folder named by you, and the newly installed one, which is put in the New HyperCard Folder automatically as part of the installation process. When you finish the exercises in this book, you can drag the New Hypercard Folder to the trash.

This book also assumes that you have installed HyperCard on a hard disk. If you don't have a hard disk, you should read the booklet *Using HyperCard Without a Hard Disk,* which is included in the HyperCard package.

Starting up and taking the tour

The best way to learn HyperCard is to start using it. In this exercise you'll open HyperCard and explore the HyperCard Tour.

Getting ready: If you've already installed HyperCard according to the instructions in Chapter 2, you can start the exercise now, beginning with step 1. If not, go back to Chapter 2 and follow the installation instructions there.

1. **Open your hard disk's icon (if it's not open already).**

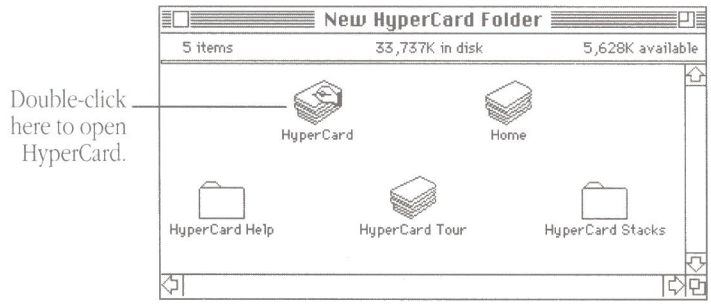
   Double-click the icon to open it.

2. **Open the New HyperCard Folder (if it's not open already).**

   You may have to use the scroll bars before you can see the folder.

3. Open HyperCard.

Open HyperCard just as you would open any program: Find its icon and double-click it.

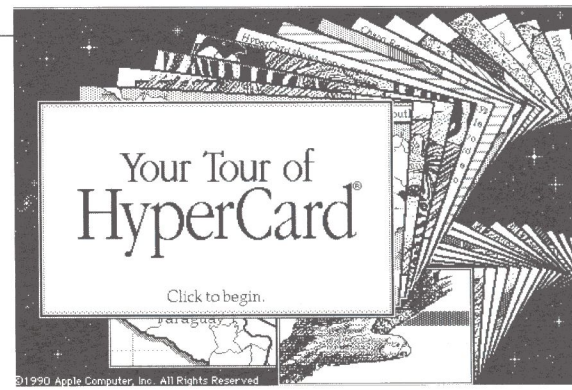


Once HyperCard is open, you'll see the first Home card, as shown in the next step.

4. Open the HyperCard Tour by clicking its button.

5. Click to begin.

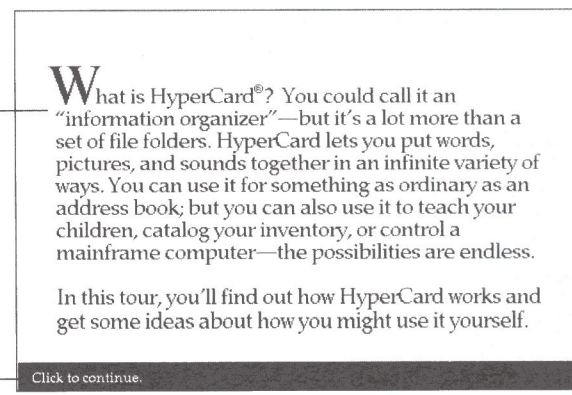
Click anywhere inside the window to begin.



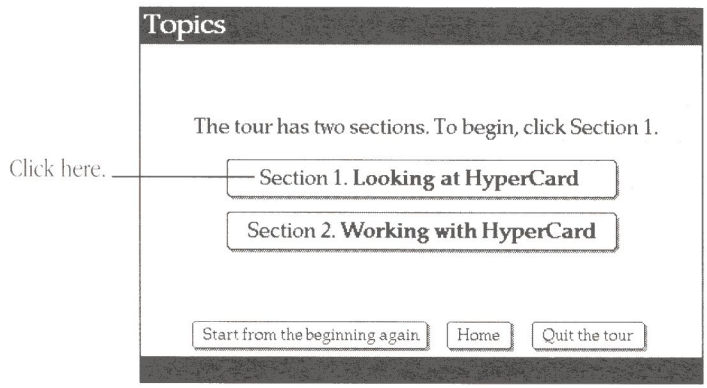
6. Read the text and click once to move on.

Click once to continue.

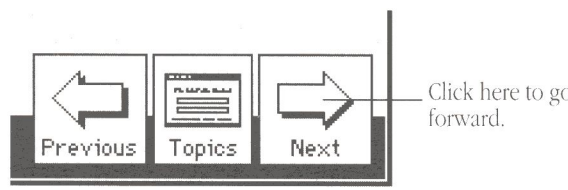
Notice that hints about what to do next often appear down here.


What is HyperCard®? You could call it an "information organizer"—but it's a lot more than a set of file folders. HyperCard lets you put words, pictures, and sounds together in an infinite variety of ways. You can use it for something as ordinary as an address book; but you can also use it to teach your children, catalog your inventory, or control a mainframe computer—the possibilities are endless.
In this tour, you'll find out how HyperCard works and get some ideas about how you might use it yourself.
Click to continue.

7. Click Section 1.

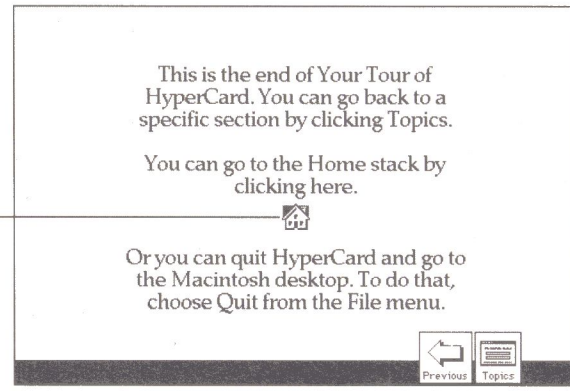

Topics
The tour has two sections. To begin, click Section 1.
Click here.
Section 1. Looking at HyperCard
Section 2. Working with HyperCard
Start from the beginning again
Home
Quit the tour

8. Follow the instructions in the tour.



If you like, you can leave the tour at the end of the first section by clicking the Topics button and then clicking the Home button. (In fact, you can use this method to leave the tour at any time.)

9. **At the end of the tour, click the Home button.**


This is the end of Your Tour of HyperCard. You can go back to a specific section by clicking Topics.
You can go to the Home stack by clicking here.
Click here when you finish the tour.
Or you can quit HyperCard and go to the Macintosh desktop. To do that, choose Quit from the File menu.
Previous
Topics

Opening HyperCard files

Each HyperCard file is called a *stack,* and each stack contains one or more *cards.* You can open stacks either by using the Open Stack command (which is like the Open command in other programs) or, easier still, by clicking buttons. The next two exercises will show you both techniques.

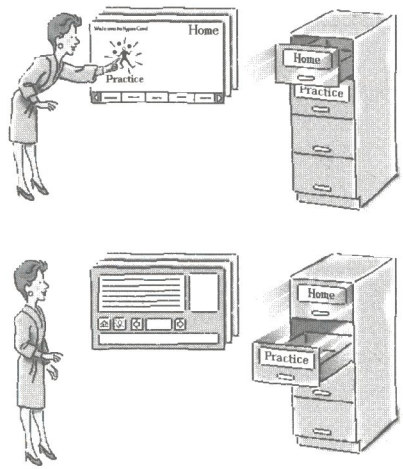
Opening stacks by clicking buttons

In this exercise you'll click a button to open the Practice stack and then click another one to return to the Home stack.

Getting ready: If you're looking at the first Home card and can see a button called Practice, you can start with step 1 now. If not, make sure HyperCard is running, choose Home from the Go menu, and then choose First from the Go menu.

1. **Click the Practice button *once* to open the Practice stack.**

   After you click, HyperCard closes the Home stack and opens the Practice stack. You see the first card of the Practice stack with John Chapman's name on it.



If you have problems clicking, you may not have the pointer in the correct position. Make sure the tip of the forefinger is over the Practice button *both* when you click the mouse button *and* when you release it.

2. **Without clicking the mouse button, roll the mouse around to discover the different pointer shapes.**

   Don't be concerned if the pointer on your screen isn't the shape you think it should be. The pointer changes shape depending on which part of the screen it's over.

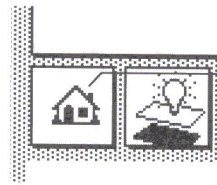
I-beam pointer: The pointer changes to this shape when it's over text you can edit.

Browse tool: The pointer changes to this shape when it's over a card (except when it's over text.)

Arrow pointer: The pointer changes to this shape when it's over any area outside the card.

3. **Click the Home button to return to the Home stack.**

The Home button is *linked* to the Home stack. By clicking the button, you close the Practice stack and open the Home stack again.

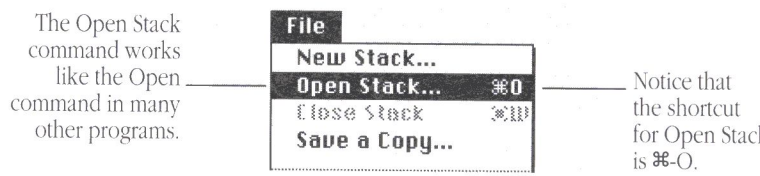


In addition to learning how to use HyperCard buttons to open stacks, you just learned an important concept: When you open a new stack, the old one will often close.

Opening stacks by using the Open Stack command

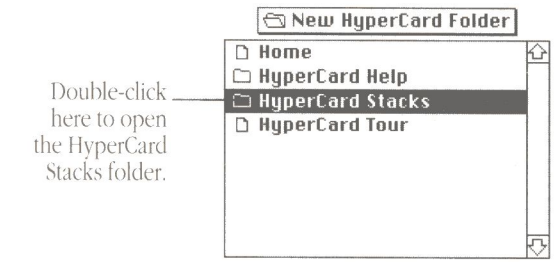
In the last exercise you opened the Practice stack by clicking a button. In this exercise you'll open it again, this time using the Open Stack command. Either way, the result is the same.

1. **Pull down the File menu and choose Open Stack.**

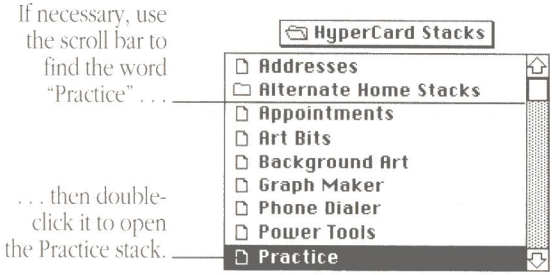

The Open Stack command works like the Open command in many other programs.
File
New Stack...
Open Stack... ⌘O
Close Stack ⌘W
Save a Copy...
Notice that the shortcut for Open Stack is ⌘-O.

After you choose the Open Stack command, HyperCard displays the directory dialog box, as shown in the next step.

2. Double-click HyperCard Stacks:



3. Double-click Practice:



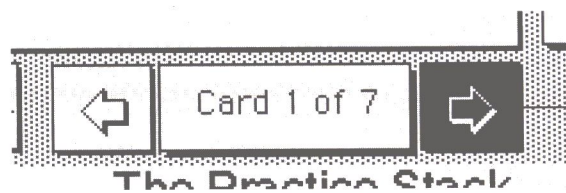
After you double-click, HyperCard closes the Home stack, opens the Practice stack, and displays its first card, just as in the last exercise.

Looking at cards

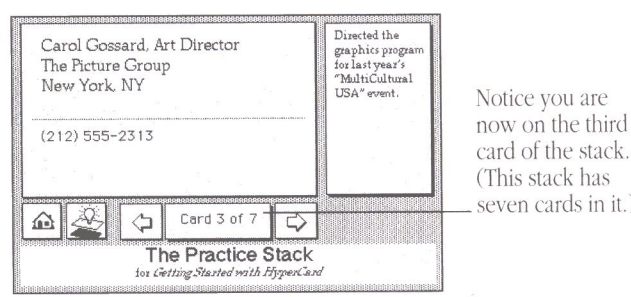
You've learned a couple of ways to open stacks. But so far you've seen only the first card of each stack. In this section you'll learn how to browse through the cards in a stack.

Getting ready: Before you start this exercise, make sure you're viewing the Practice stack card with John Chapman's name on it. If you already are, start now with step 1. If not, choose Home from the Go menu, click the "Welcome to..." button, and click the Practice button.

1. **Click the right arrow button once, and then again.**



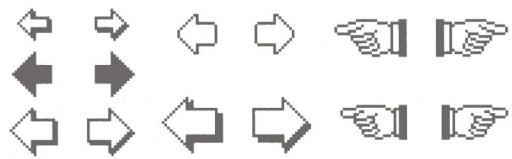
Each time you click the right arrow button you move to the next card in the stack. The first time you click you see Eric's card; the second time, you move to Carol's card.


Carol Gossard, Art Director
The Picture Group
New York, NY
(212) 555-2313
Directed the graphics program for last year's "MultiCultural USA" event.
Card 3 of 7
The Practice Stack
for Getting Started with HyperCard
Notice you are now on the third card of the stack. (This stack has seven cards in it.)

2. **Click the left arrow button twice to go back to the first card, which has John's address on it.**

   Each time you click the left arrow button, you go to the previous card.

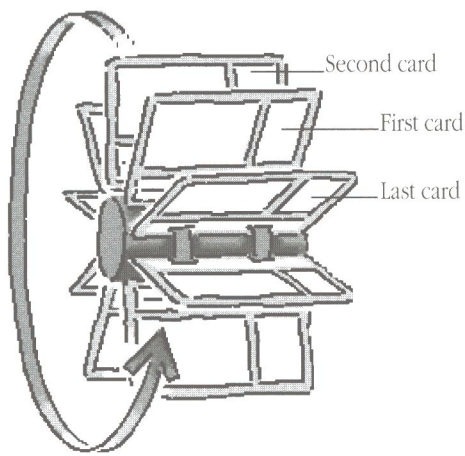
Arrow buttons are used a lot in HyperCard stacks, but they don't always look like the ones in this stack. Here are some arrow buttons you might find in other stacks:



3. **Click the left arrow button one more time.**

   What happens when you're already on the first card and ask to go backward? HyperCard displays the last card in the stack—in this case, the card for Zuzana Mrkova.

   The cards in a HyperCard stack are arranged in a circular fashion, so the first card in a stack and the last card in a stack are next to each other.



4. **Click the right arrow once to return to the first card.**

   John's card is displayed.

Now you know the basics of how to get around in HyperCard. You use buttons or the Open Stack command to move from one stack to another, and you use arrow buttons to move forward and backward through a stack.

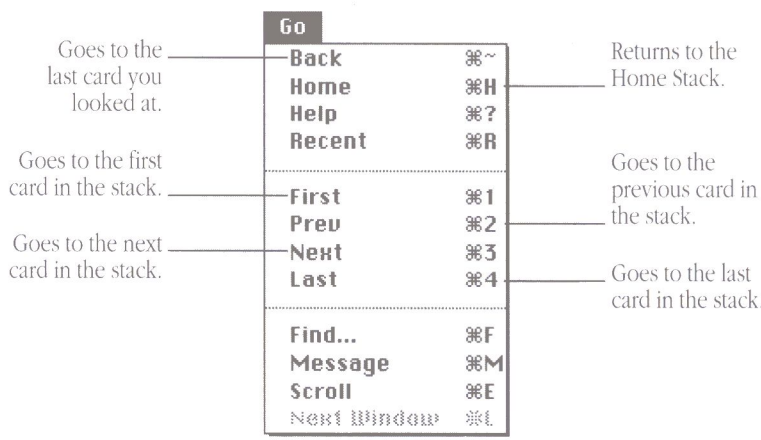
Knowing only that much, you can browse through almost any stack you get. But if you learn how to use the Go menu, you'll find it easier to move around in HyperCard.

Using the Go menu

The Go menu contains commands for navigating through stacks and moving from one stack to another. This section shows you how to use some of the commands in the Go menu.

The basic commands

This exercise will teach you how to use the commands described in this illustration:



Getting ready: If you're already viewing John Chapman's card in the Practice stack, you can begin with step 1 immediately. Otherwise, choose Home from the Go menu, click the "Welcome to..." button, and click the Practice button.

1. **Pull down the Go menu and choose Next.**

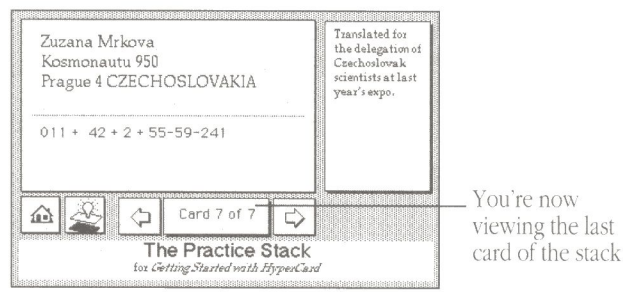
   The Next command takes you to the next card in the stack, just like the right arrow button did in the previous exercise. You should be viewing Eric's card, the second card in the stack.

2. **Pull down the Go menu and choose Prev.**

   The Prev command, like the left arrow button, takes you to the card in the stack immediately before the one you are looking at. *Prev* is short for *previous*. You should be viewing John's card again, the first card in the stack.

3. **Choose Last from the Go menu.**

   As you might expect, the Last command takes you to the last card of whatever stack you are viewing, in this case Zuzana's card.


Zuzana Mrkova
Kosmonautu 950
Prague 4 CZECHOSLOVAKIA
011 + 42 + 2 + 55-59-241
Translated for the delegation of Czechoslovak scientists at last year's expo.
Card 7 of 7
The Practice Stack
for Getting Started with HyperCard
You're now viewing the last card of the stack.

4. **Choose First from the Go menu.**

   Similarly, the First command takes you to the first card of the stack, and you see John's card again.

5. **Choose Home from the Go menu.**

   The Home command, like the Home button, takes you back to the Home stack. Whenever you get lost, you can return Home by choosing this command.

6. **Choose Back from the Go menu.**

   You return to John's card. The Back command returns you to the last card you looked at, even if the card was in an entirely different stack.

7. **Choose the Back command once again.**

   You go to Zuzana's card.

   The Back command retraces your steps through the cards you just viewed, one card at a time.

8. **Finally, choose the Home command.**

The Recent command

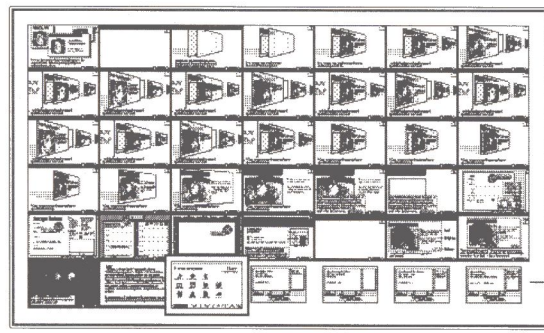
You may find that you want to return to a card you've seen recently. To do so, use the Recent command.

1. **Choose Recent from the Go menu.**

   HyperCard displays a dialog box showing you miniature pictures of up to the last 42 cards you've seen, more or less in the order you've seen them.

   Notice, however, that even though you've visited the Home card twice, it appears only once. To be able to display as many cards as possible in the Recent dialog box, HyperCard displays each card only once.

2. **Click a miniature picture of any of the cards from the Practice stack.**



Click any miniature picture that looks like it came from the Practice stack. (Your dialog box may look different since you may have looked at different cards or seen them in a different order.)

You can go to any of the cards represented in the dialog box by clicking its miniature.

Quitting HyperCard

You leave HyperCard the same way you leave any Macintosh application program, by choosing the Quit command from the File menu. If you'd like to go on with this book now, there's no need to quit; if you'd rather continue another time, you can quit and pick up the book later.

Experts only

This section is for people who like learning tricks and shortcuts. So if you prefer using programs in the simplest way possible, you might want to turn the page and go on to the next chapter.

Each boldface instruction asks you to perform an experiment and see what happens. If the result doesn't make sense, read the short explanation in italics. If you want still more information, check the *HyperCard Reference.*

- **Go to the Practice stack. Then try pressing the right and left arrow keys on your keyboard (as opposed to clicking the arrow buttons on the screen).**

  The right arrow key moves you forward through the stack one card at a time; the left arrow key moves you backward. You can use the arrow keys as keyboard shortcuts for navigation.

- **Go to the Practice stack and press ⌘-H.**

  The ⌘-H shortcut takes you Home. Pull down the Go menu and look at the other shortcuts.

More Basics

You now know how to browse through HyperCard stacks. In this chapter you'll learn how to do the following:

- Type on cards
- Add new cards
- Manipulate HyperCard windows
- Save stacks
- Use the Home stack
- Use the Message box
- Find a card by searching for text
- Copy art
- Print cards and stacks
- Get help from HyperCard

Typing

Most stacks allow you to do much more than just look at the cards. For example, you can enter your own information, either by typing or by painting. The exercises in this section will show you how to type information on cards.

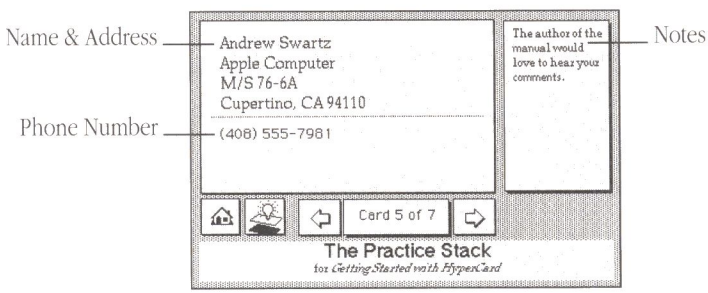
If you've used a Macintosh word processor—or any other program that involves typing—you already know most of what you need to know. The main differences you'll notice when working with text in HyperCard are:

- You can't use tabs to indent or line up columns.
- You can't always use the arrow keys to move through text.

Entering text

You can type text only in certain areas on a card. Each card is like a blank form with rectangular areas where you can fill in information. In HyperCard, each of these areas is called a *field.*

The Practice stack has three fields in which you can type:



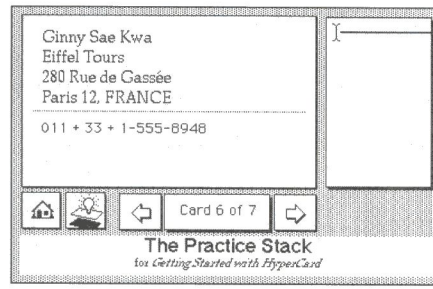
In this exercise you'll fill in the Notes field for Ginny's card.

Getting ready: Before you start this exercise, make sure you're viewing any card in the Practice stack. If not, return to the Home stack and click the Practice button.

1. **Use the arrow buttons to find the card for Ginny Sae Kwa.**

   Click the right or left arrow buttons to find Ginny's card. Ginny is on the sixth card.

2. **To indicate where you want to type, click the upper-left corner of the Notes field.**

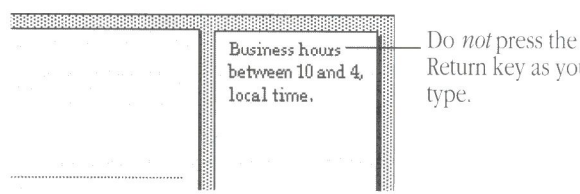


Notice that your pointer changes to the *I-beam pointer* (I) when it's over a field. When you click, the vertical bar that marks the *insertion point* will blink at the beginning of the field.

If you click too far down in the field, use the Delete or Backspace key to get back to the top of the field. If you click in the wrong field altogether, just try again.

3. **Type a note, as shown in the illustration.**

You need not press the Return key as you type. The text will automatically break at the right point.



HyperCard automatically saves the text as you type it.

If you make a mistake while typing, you can use the Delete or Backspace key to erase the mistake. However, you *cannot* use the arrow keys.

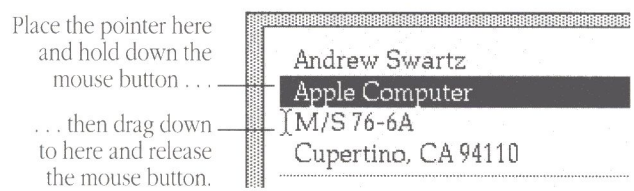
Editing text

You can edit text in HyperCard fields the same way you edit any text on your Macintosh. (If you don't know the standard techniques for editing text, see the documentation that came with your Macintosh.) In this exercise you'll use the standard techniques to copy and paste some text and to make some other text italic.

1. **Use the arrow keys to find Andrew Swartz's card.**

   Andrew's card is the fifth card in the stack. If you're still looking at Ginny's card, click the left arrow once.

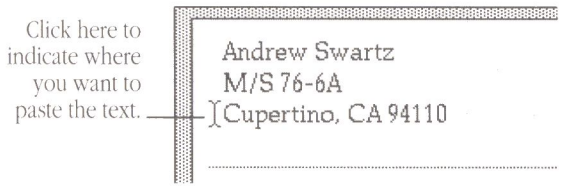
2. **Select the second line of the address.**


Place the pointer here and hold down the mouse button . . .
. . . then drag down to here and release the mouse button.
Andrew Swartz
Apple Computer
M/S 76-6A
Cupertino, CA 94110

3. **Choose Cut Text from the Edit menu.**

   The text is removed from the card and placed on the invisible *Clipboard*. (As in most Macintosh programs, the shortcut for the Cut Text command is ⌘ X.)

4. **Click once just before the word "Cupertino."**

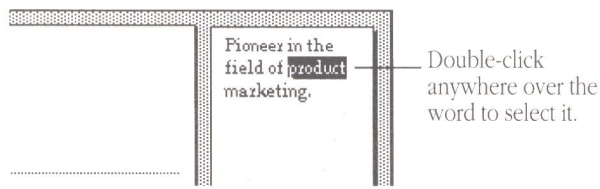


5. **Choose Paste Text from the Edit menu.**

   The line you previously cut is pasted in. (The shortcut for the Paste Text command is ⌘ V.)

6. **Go to John's card by choosing First from the Go menu.**

7. **Select the word "product" by double-clicking it.**



   After you double-click, the word is highlighted.

8. **Choose Bold from the Style menu.**

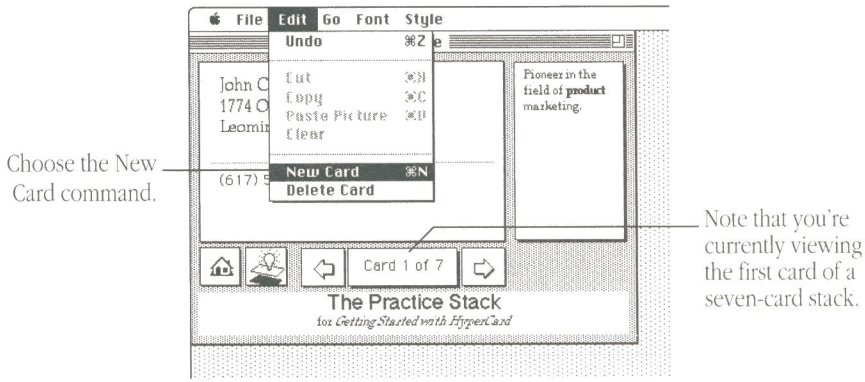
   The word becomes bold.

Adding new cards

You can add new cards to your stack whenever you like. In this exercise you'll create a new card in the Practice stack.

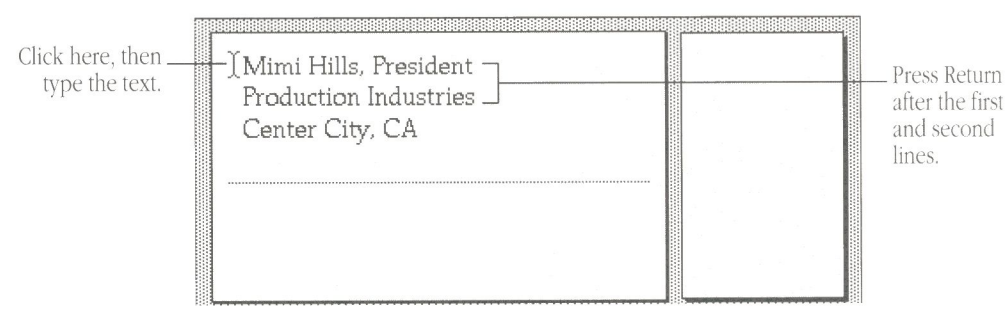
Getting ready: Before you begin, make sure you're still viewing John's card in the Practice stack. If not, return Home and click the Practice button.

1. Choose New Card from the Edit menu.

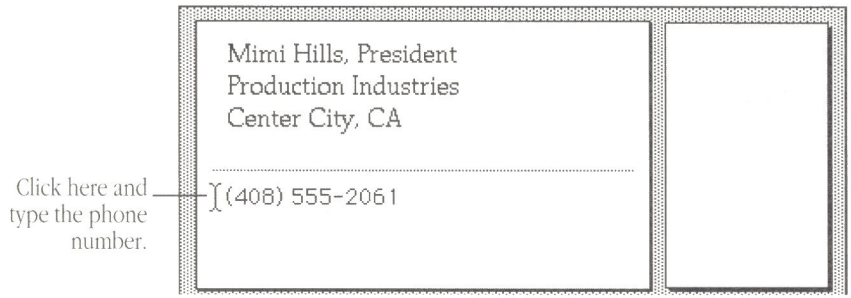


HyperCard creates a new, blank card, places it after the card you were looking at, and displays the new card:

2. Click the upper-left corner of the Name & Address field and type the name and address:


Click here, then type the text.
Mimi Hills, President
Production Industries
Center City, CA
Press Return after the first and second lines.

3. **Click in the upper-left corner of the Phone Number field and type the phone number:**

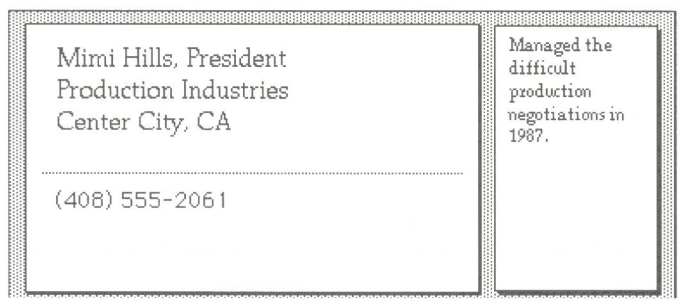


4. **Press the Tab key on the keyboard to move to the next field.**

   The insertion point begins to blink in the upper-left corner of the Notes field.

   When you wish to stop typing in one field and begin typing in another, you can use the mouse to move the insertion point (as you did before) or you can use the Tab key (as you did this time).

5. **Type the note without pressing the Return key:**



   The text breaks at appropriate spaces even though you don't press the Return key.

Manipulating windows

So far, you've only had one HyperCard window open at a time. Whenever you've opened a new stack, HyperCard has closed the old one. In this section you'll learn how to display more than one stack at a time, how to arrange their windows on your screen, how to change the window sizes, and how to close them.

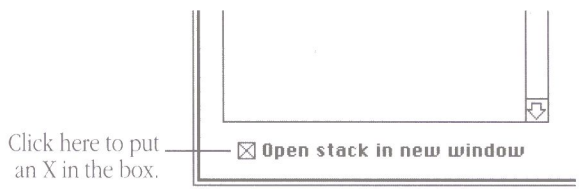
When you use buttons to open stacks, you don't have a choice about whether they'll close the old stack. (The person who creates the button gets to choose.) However, when you use the Open Stack command, the choice is yours, as you'll learn in this exercise:

1. **Go Home.**

   Click the Home button or choose Home from the Go menu.

2. **Choose Open Stack from the File menu.**

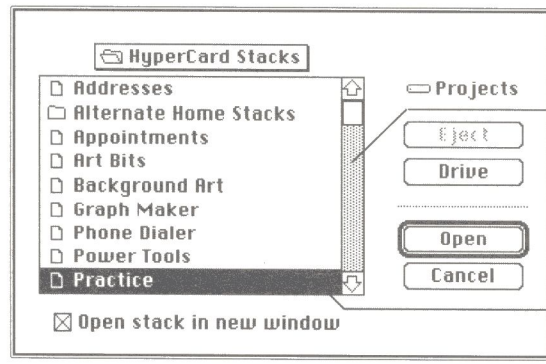
3. **Click the "Open stack in new window" check box to select it.**



   An X in the check box indicates that the stack will be placed in a new window and that the old window will *not* be closed.

4. **Double-click the name "HyperCard Stacks" to open the folder.**

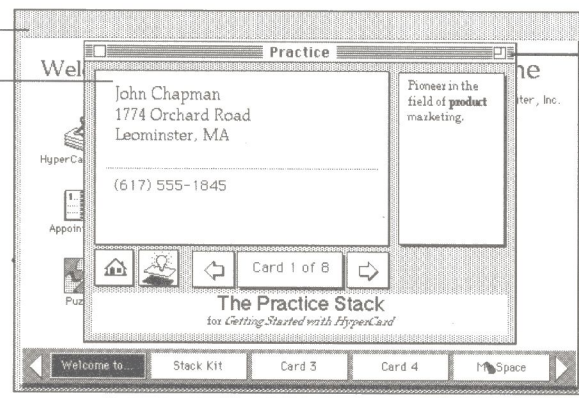
5. **Double-click the name "Practice" to open the stack.**



If necessary, use the scroll bar to find the word "Practice" . . .

. . . then double-click it to open the Practice stack.

You should now see both stacks open at the same time:



6. **Make the Home stack's window active by clicking anywhere in the part of it you can see.**

In HyperCard, as in all Macintosh programs, only one window can be active at a time. A window must be active before you can do anything to it, such as type or click buttons.

When you click the Home stack's window, the Macintosh places it in front of the Practice stack's window.

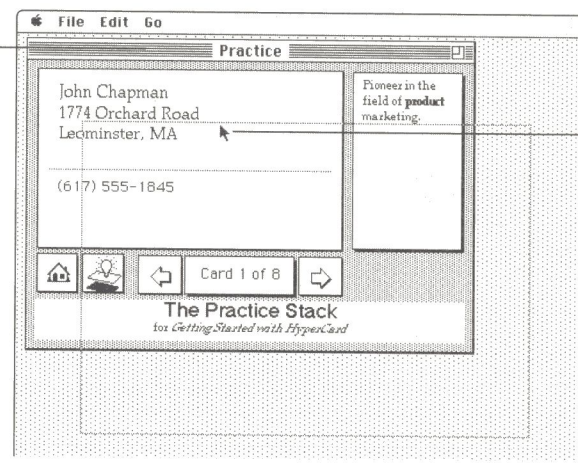
7. **Choose Close Stack from the File menu.**

You can also close a stack by clicking its close box (as long as the title bar isn't hidden).

The active window, in this case the Home stack's window, closes. No longer hidden by the Home stack, the Practice stack is visible once again.

8. **Move the Practice stack's window to the bottom of your screen by dragging it by its title bar.**

Place the pointer over the title bar and hold down the mouse button . . .

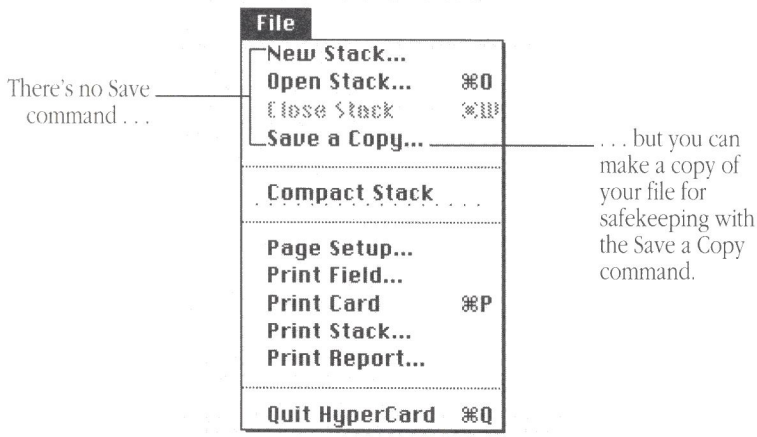


. . . then drag down to here and release the mouse button.

Saving stacks

Unlike most Macintosh software, HyperCard automatically saves changes as you make them. In this exercise you'll see that there is no Save command in the File menu:

1. **Pull down the File menu but *don't choose any commands.***



2. **Release the File menu.**

If you accidentally chose the Save a Copy command, click Cancel to exit the dialog box.

Remember, you *never* have to save a file in HyperCard.

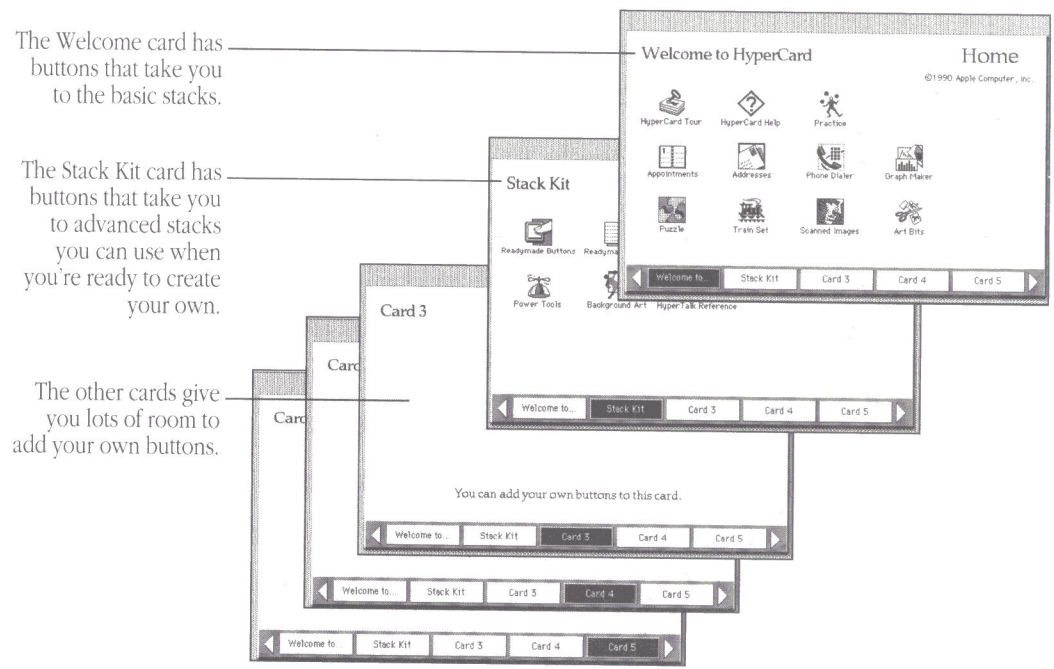
The Home stack

The Home stack will usually be your starting place when you start up HyperCard. Take the time to get to know it. In this section you'll learn about two important parts of the Home Stack:

- The *Home cards*, which contain a collection of buttons that take you to your favorite stacks
- The *Preferences card*, which you use to adjust some of HyperCard's settings

The Home cards

The first thing you see when you open HyperCard is the first of the five Home cards, called Welcome to HyperCard. Each Home card is designed to hold buttons that can quickly take you to any of your favorite stacks. HyperCard comes with five Home cards:

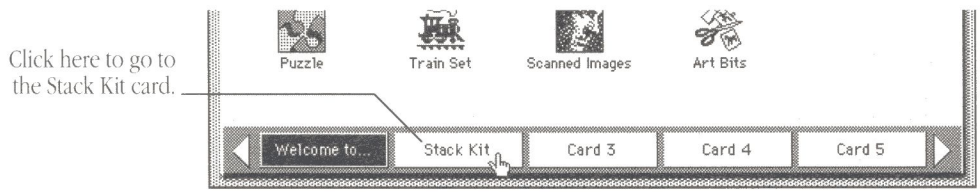


In this exercise you'll go to the Stack Kit card to open the Background Art stack. (The button for the Background Art stack isn't on the first card.) Also, you'll learn how to rename the Home cards. The main lesson is that this is *your* Home stack and you should arrange it to please yourself.

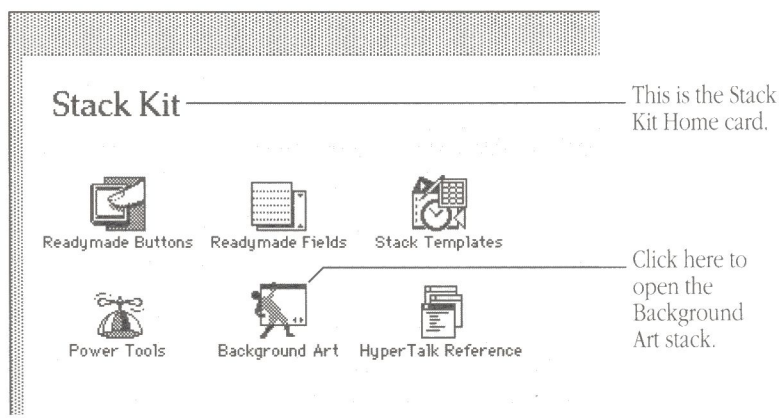
1. **Go Home.**

   Choose Home from the Go menu.

2. **Go to the Stack Kit card by clicking its button.**



3. **Open the Background Art stack by clicking its button.**



The Background Art stack contains art you can use to create your own stacks.

4. **Return Home.**

   Choose Home from the Go menu

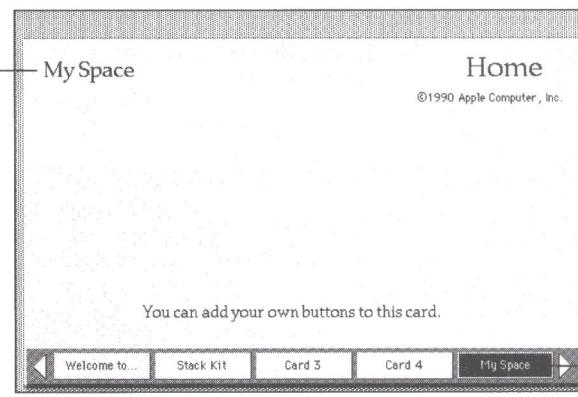
   Notice that after a fleeting glimpse of the first Home card, you return to the Stack Kit card.

5. **Go to the Home card called Card 5.**

   Click the Card 5 button at the bottom of the Home card. Like Card 3 and Card 4, Card 5 is mostly empty to give you room to add your own buttons. You can add buttons to the first two Home cards as well.

6. **Choose Rename This Card from the Home menu.**

7. **Type the name `My Space` and click OK.**


The new name of the card appears here . . .
My Space
Home
©1990 Apple Computer, Inc.
You can add your own buttons to this card.
Welcome to...
Stack Kit
Card 3
Card 4
My Space
. . . and on the button.

8. **Return to the Home card called Welcome to HyperCard.**

   Click the "Welcome to..." button at the bottom of the card.

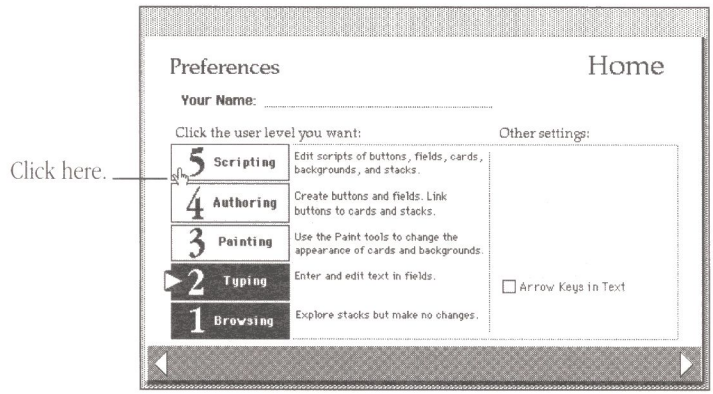
The Preferences card

The Preferences Card in the Home stack allows you to choose which *user level* you want to work at. HyperCard has five user levels. When you first install it, HyperCard is set up to work at the second level: Typing. At the Typing level you can look at cards and type on them, but you can't paint the card or modify buttons or fields.

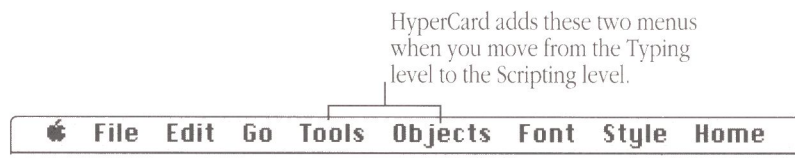
In this exercise you'll select the highest user level, called Scripting, which allows you to see and use all the menus and commands HyperCard has to offer.

Getting ready: Before you begin, make sure you're still in the Home stack. If you're not, choose Home from the Go menu.

1. **Choose Preferences from the Home menu.**
2. **Click the button for the Scripting level.**

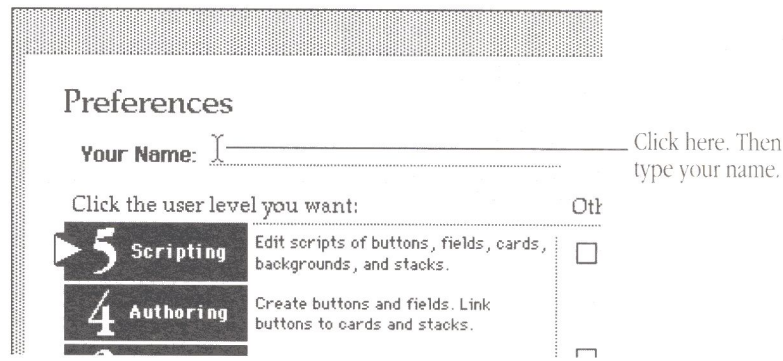

Click here.
Preferences
Home
Your Name:
Click the user level you want:
Other settings:
5 Scripting
Edit scripts of buttons, fields, cards, backgrounds, and stacks.
4 Authoring
Create buttons and fields. Link buttons to cards and stacks.
3 Painting
Use the Paint tools to change the appearance of cards and backgrounds.
2 Typing
Enter and edit text in fields.
Arrow Keys in Text
1 Browsing
Explore stacks but make no changes.

Notice that when you move to the Scripting level, HyperCard adds two extra menus. (It also adds commands to some of the other menus.)


HyperCard adds these two menus when you move from the Typing level to the Scripting level.
File Edit Go Tools Objects Font Style Home

△ **Important:** Setting your user level to Scripting lets you use commands that can temporarily disable the Browse tool. If you find you've lost the Browse tool and can't type text or click buttons, you can choose the Browse tool (✋) from the Tools menu at any time. △

3. **Click the blank after "Your Name:" and type your name.**


Preferences
Your Name:
Click here. Then type your name.
Click the user level you want:
Oth
5 Scripting
Edit scripts of buttons, fields, cards, backgrounds, and stacks.
4 Authoring
Create buttons and fields. Link buttons to cards and stacks.

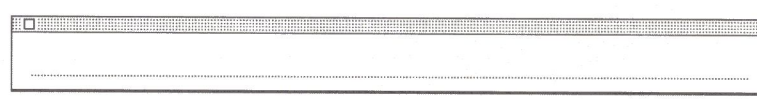
4. **Return to the first card of the Home stack.**

   Choose First from the Go menu.

By changing the Preferences card in this exercise, you've gained access to all the commands and features HyperCard has to offer. When you're done with this book, you can come back to this card and change your user level again if you like.

The Message box

The *Message box* is a special window in HyperCard. It looks like this:



It has room for one line of text in which you can type commands, called *messages*, and in which HyperCard can type replies. Probably the most common command you'll enter in the Message box is the Find command, which allows you to find a card by searching for text on it.

Controlling the Message box

In this exercise you'll learn how to manipulate the Message box. In the next, you'll learn a few messages. Here's how to display the Message box, move it, and make it go away:

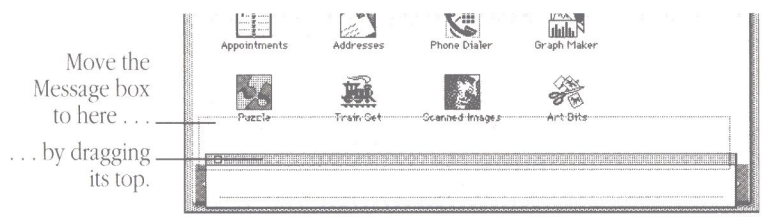
Getting ready: Make sure you're viewing the Welcome to HyperCard Home card. If you aren't, choose Home from the Go menu and then click the "Welcome to..." button at the bottom of the card.

1. **Choose Message from the Go menu.**

   HyperCard opens the Message box.

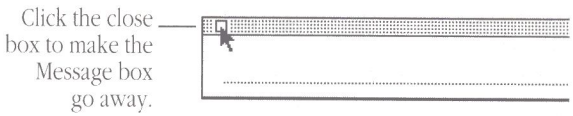
2. **Move the Message box.**

   You can move the Message box by placing the pointer over the bar at the top of the box, holding down the mouse button, and dragging it where you want it to go.



3. **Close the Message box by clicking its close box.**

   Since the close box is small, make sure you've got the tip of the arrow in the box before you click.



Using the Message box

Now try typing some messages in the Message box. When the Message box is visible, anything you type will be placed in the Message box, *unless* the insertion point is blinking in one of the fields on the card.

1. **Go to the Practice stack.**

   Click the Practice button on the first Home card.

2. **Open the Message box again.**

   Choose Message from the Go menu. Don't worry if there's text in the Message box. It will disappear as soon as you start typing.

3. **Type the words `the date` and then press Return.**

   HyperCard places today's date in the Message box. Remember, you have to press Return after every message. If you make a mistake while you're typing in the Message box, you can correct it using the Delete or Backspace key.

If the date is wrong, your Macintosh has the wrong date in its internal calendar. To set the correct date, correct it in the Control Panel. (For details, see the documentation that came with your Macintosh computer.)

4. **Type** `12+5` **and press Return.**

   The date in the Message box disappears when you start typing.

   You can use the Message box as a calculator. HyperCard places the correct answer, 17, in the Message box.

5. **Type** `flash 3`

   This message makes the card flash three times.

6. **Type** `go home`

   HyperCard takes you back to the Home card.

7. **Type** `go back`

   HyperCard returns you to the Practice stack.

You've just learned your first words of HyperTalk. If you want to learn more about this powerful, English-like programming language, read the *HyperTalk Beginners Guide.*

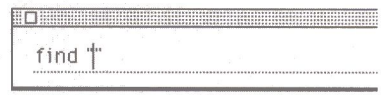
Finding text

Many HyperCard stacks contain hundreds of cards. Even so, you can find a particular card quickly, using the Find command, provided you remember one or two words that are typed on the card. In this exercise you'll learn how to use the Find command.

Getting ready: Before you begin, make sure you're still viewing John's card in the Practice stack. If not, return Home and click the Practice button.

1. **Choose Find from the Go menu.**

   HyperCard opens the Message box (if it was closed), types the Find command, and places the insertion point between two quotation marks. (This is exactly the same as if you typed the command yourself. If you do type the command yourself, make sure you include the quotation marks.)



2. **Type the word** `Gossard`

   The word appears between the quotation marks.

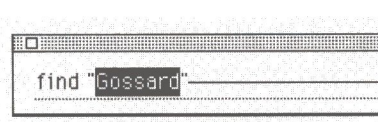
3. Press the Return key.

As soon as you press the Return key, HyperCard searches the Practice stack for the word "Gossard." (You can find text in only one stack at a time. HyperCard searches only the stack that's active when you enter the Find message.)

HyperCard finds a card with the word "Gossard" on it, displays the card, and puts a box around the word.

4. Choose Find from the Go menu again.

If you like shortcuts, the Find command has an easy one to remember: ⌘-F.

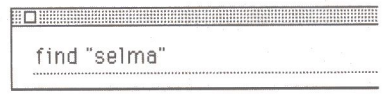


When you choose the Find command again it enters the last word you looked for and highlights it.

❖ *Command key symbol:* The symbol ⌘ refers to the key or keys on your keyboard that are marked with this symbol. (In some Apple manuals, this key is called the Command key.) To press ⌘-F, press the F key while holding down the ⌘ key. ❖

5. **Type** `selma`

   As soon as you start typing, the old word "Gossard" disappears. Note that you don't have to type capital letters when you use the Find command.



6. **Press the Return key.**

   When you press the Return key, HyperCard finds the next card in the stack with the word "Selma" on it, in this case Kevin's card.

7. **Press the Return key again.**

   Each time you press Return, HyperCard finds the next use of the word "Selma."

8. **Close the Message box.**

   You can either click its close box or choose Message from the Go menu again.

Copying and pasting a picture

You know how to add text to cards, but that's not all you can do. You can also add art. In this exercise, you'll copy a picture of a pencil from the Art Bits stack to Andrew's card.

Copying the picture

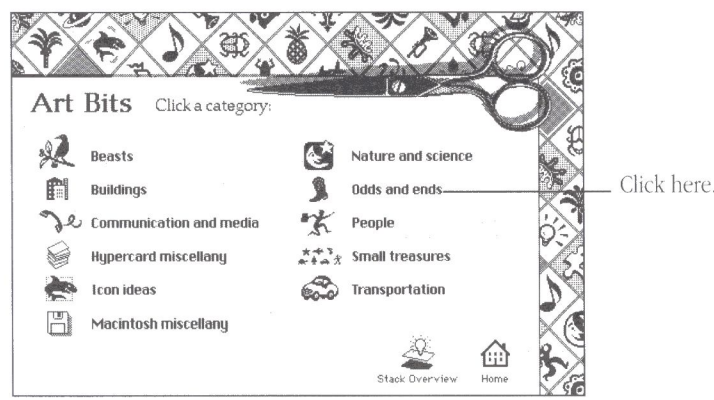
Start by finding the right picture and copying it:

1. **Go Home.**

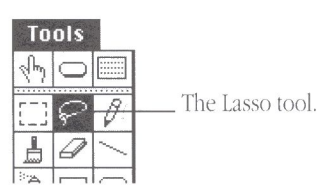
   Choose Home from the Go menu. Click the "Welcome to..." button if it's not already selected.

2. Go to the Art Bits stack by clicking its button.

3. Go to the "Odds and ends" section by clicking its button.



4. Choose the Lasso tool from the Tools menu



The Lasso tool allows you to select an irregularly shaped object without including any of the extra white space around it.

5. **Use the Lasso tool to select the picture of the pencil.**

   If the palette window is in your way, you can move it by dragging its top bar.

   After you release the mouse button, the pencil is surrounded by a moving dashed line (sometimes called "marching ants") to indicate that it's selected.

   If you make a mistake, click once anywhere else on the card and try again.

6. **Choose Copy Picture from the Edit menu.**

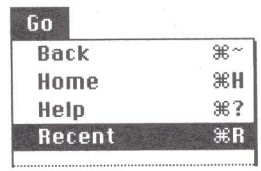
   A copy of the picture is placed on the invisible Clipboard. The original remains on the card.

   If the art disappears from the card, you probably chose Cut Picture instead of Copy Picture. Choose Undo from the Edit menu and try again.

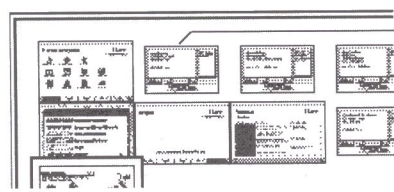
Pasting the picture

Now you'll return to the Practice stack, find Andrew's card, and paste the picture:

1. **Go back to the Practice stack by using the Recent command.**

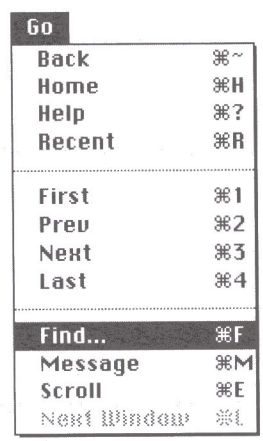


Choose the Recent command from the Go menu . . .



. . . then click any of the miniatures in the Recent dialog that look like they come from the Practice stack. (Your Recent dialog box may look different.)

2. **Find Andrew's card by using the Find command.**



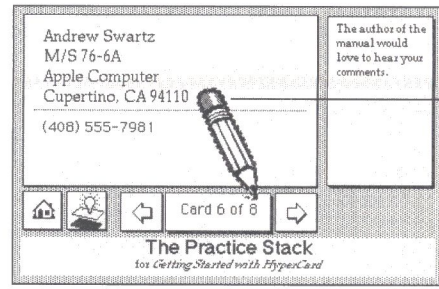
First choose the Find command from the Edit menu.

Then type `andrew` and . . .

. . . press Return.

Andrew's card appears.

3. **Choose Paste Picture from the Edit menu.**

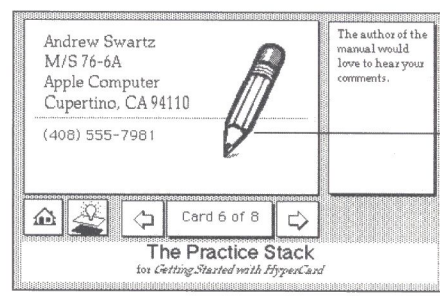

Andrew Swartz
M/S 76-6A
Apple Computer
Cupertino, CA 94110
(408) 555-7981
The author of the manual would love to hear your comments.
Card 6 of 8
The Practice Stack
for Getting Started with HyperCard
The picture appears and is selected.

▲ **Warning:** Be careful not to click the card accidentally: If you do, you'll deselect the picture and won't be able to finish the exercise. ▲

4. **Choose Flip Horizontal from the Paint menu.**

   The picture is "flipped" to face the other way.

5. **Move the picture into position by dragging it.**


Andrew Swartz
M/S 76-6A
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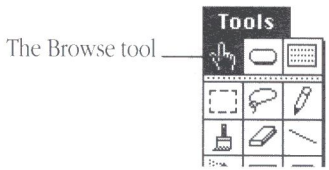
Cupertino, CA 94110
(408) 555-7981
The author of the manual would love to hear your comments.
Card 6 of 8
The Practice Stack
for Getting Started with HyperCard
Drag the pencil to this location.

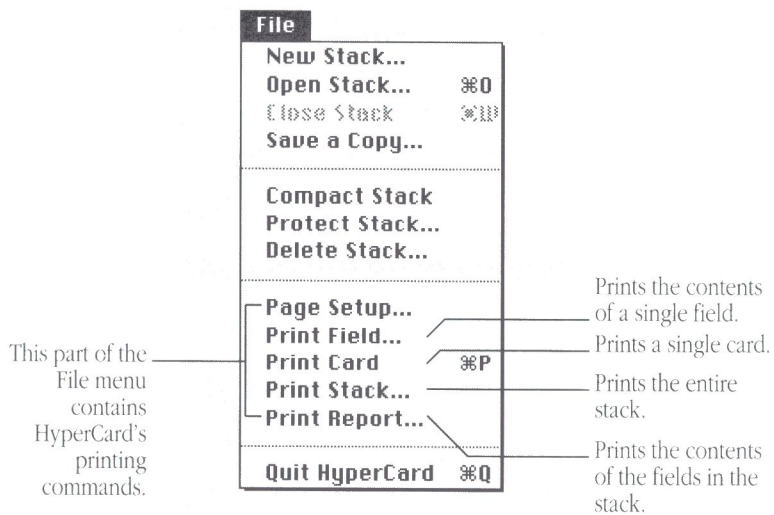
6. Choose the Browse tool from the Tools menu.



Without the Browse tool, you can't click buttons and type in fields.

Printing

HyperCard has a variety of printing commands:



In this section you'll use all the printing commands except Page Setup and Print Report.

Printing one card

In this one-step exercise you'll print the card you just finished decorating.

1. **Choose Print Card from the File menu.**

   HyperCard prints the card.

If you have problems printing, consult the manuals that came with your printer and your Macintosh.

Printing the contents of a field

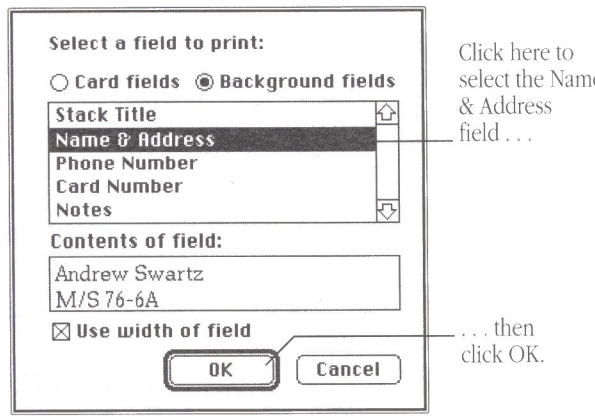
Suppose you want to give Andrew's address to someone, but not his phone number or your other notes about him. You can print the contents of just one field, as illustrated in this exercise.

Getting ready: Make sure you're viewing Andrew's card in the Practice stack.

1. **Choose Print Field from the File menu.**

   HyperCard displays a dialog box that lets you to choose which field you want to print, as shown in the next step.

2. Select "Name & Address" and click OK.



HyperCard prints Andrew's name and address.

Printing a whole stack

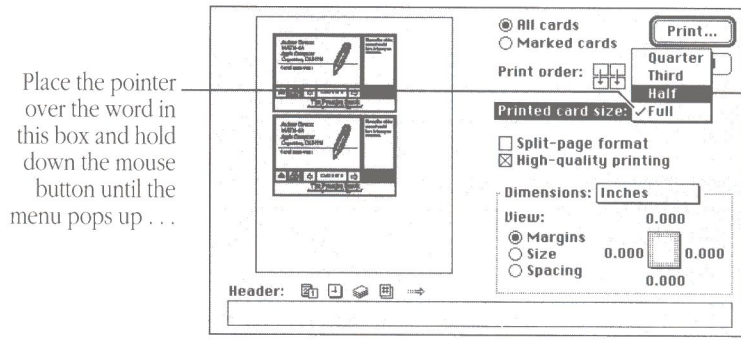
In this exercise you'll learn about the Print Stack command.

Getting ready: If you're viewing any card in the Practice stack, you're ready to begin. If not, go Home and click the Practice button.

1. **Choose Print Stack from the File menu.**

   HyperCard displays a dialog box that offers a variety of options for printing stacks, as shown in the next step.

2. **If necessary, use the pop-up menu to select half-size cards.**



Choosing half-size cards means that the whole stack will fit on a single page.

3. **Click Print.**

HyperCard displays one more printing dialog box.

4. **Click OK.**

After you click OK, HyperCard flips through all the cards in the stack as it prepares to print; then prints them.

For more information on the many options in the Print Stack dialog box, consult the *HyperCard Reference.*

Getting help

If you have a question about how to do something in HyperCard, you can often get the answer from the HyperCard Help stack. HyperCard Help gives you two ways to find answers: by looking through its list of topics or by searching for words.

Using the list of topics

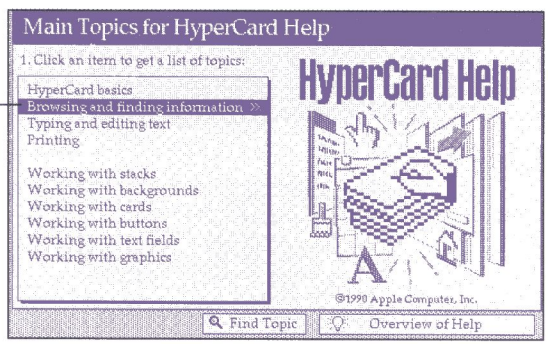
Suppose you wanted to learn how to change the size of HyperCard windows. You could look through the list of topics as described in this exercise:

1. **Choose Help from the Go menu.**

   HyperCard opens the HyperCard Help stack. If HyperCard has enough memory, it leaves the original stack you were looking at open as well.

   If you like shortcuts, Help has an easy one to remember: ⌘-? (⌘–question mark). (You can also get to the Help stack by clicking the HyperCard Help button on the first Home card.)

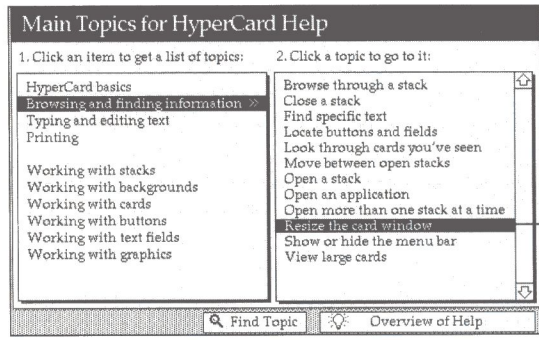
2. **Click "Browsing and finding information" in the list of topics.**



Click here to select the main topic.

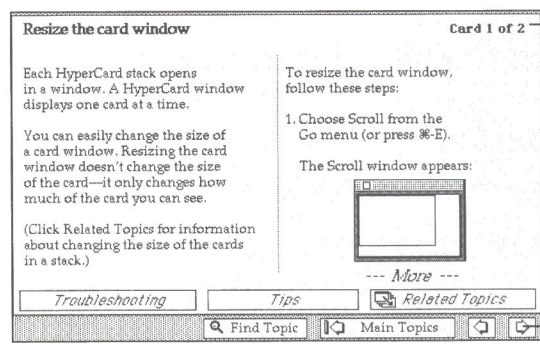
Clicking a main topic shows you a list of related topics from which to choose, as shown in the next step.

3. **Click "Resize the card window" in the list of topics.**


Main Topics for HyperCard Help
1. Click an item to get a list of topics:
2. Click a topic to go to it:
HyperCard basics
Browsing and finding information »
Typing and editing text
Printing
Working with stacks
Working with backgrounds
Working with cards
Working with buttons
Working with text fields
Working with graphics
Browse through a stack
Close a stack
Find specific text
Locate buttons and fields
Look through cards you've seen
Move between open stacks
Open a stack
Open an application
Open more than one stack at a time
Resize the card window
Show or hide the menu bar
View large cards
Find Topic
Overview of Help
Click here to select the subtopic.

The Help stack displays information about the topic, as shown in the next step.

4. **Click the right arrow button to finish reading about resizing the card window.**


Resize the card window
Card 1 of 2
There are two cards describing this subject.
Each HyperCard stack opens in a window. A HyperCard window displays one card at a time.
You can easily change the size of a card window. Resizing the card window doesn't change the size of the card—it only changes how much of the card you can see.
(Click Related Topics for information about changing the size of the cards in a stack.)
To resize the card window, follow these steps:
1. Choose Scroll from the Go menu (or press ⌘-E).
The Scroll window appears:
--- More ---
Troubleshooting
Tips
Related Topics
Find Topic
Main Topics
Click the arrow button to see the other cards.

5. **Click the Main Topics button to return to the first card in the Help system.**

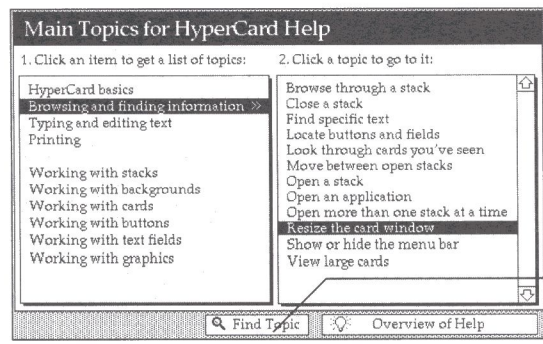
You return to the Main Topics card.

Using the Find Topic feature

If you're not sure what topic to look under, you may want to use the Find Topic feature. For this exercise, suppose you wanted to learn how to create a new button on the Home stack.

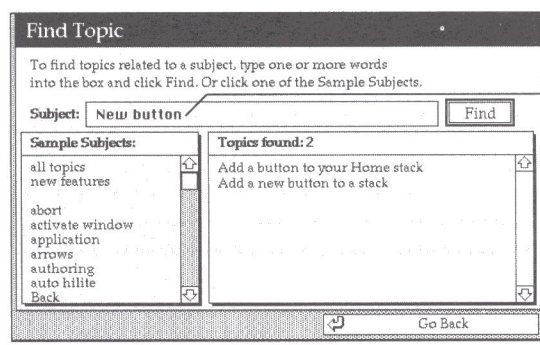
Getting ready: Make sure you're viewing the Main Topics card in the HyperCard Help stack. If not, choose Help from the Go menu.

1. **Click the Find Topic button.**



The Help stack displays the Find Topic card, as shown in the next step.

2. **Type** `New button`



3. **Click the Find button.**

   The Help stack displays a list of topics relating to new buttons.

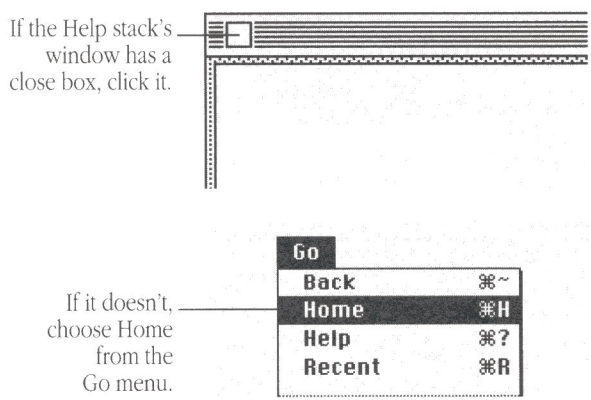
4. **Click "Add a button to your Home stack" to choose the topic.**

   The Help stack displays information about adding new buttons to your Home stack.

5. **Use the right arrow button to finish reading about adding new buttons.**

6. **Exit Help.**

   The way you exit Help depends on whether your window has a close box:



Experts only

This section demonstrates some shortcuts and other advanced features. If you prefer to focus on HyperCard's more routine features, skip this section and start with the next chapter.

- **In the Practice Stack, press Tab several times. Then press Shift-Tab several times. (Press Shift-Tab by holding down the Shift key while pressing Tab.)**

  Each time you press Tab, you highlight the next field. Each time you press Shift-Tab, you highlight the previous field. Tab and Shift-Tab are shortcuts for moving from one field to the next.

- **Choose Print Stack from the File menu. Choose Quarter from the "Printed card size" pop-up menu and click these five icons next to the word "Header:"** **, typing a space after each click. Click Print, then click OK.**

  The first four icons put the date, the time, the name of the stack, and the page number on the top of each page. The fifth icon, the arrow, functions as a Tab key. You can put your own text in the header as well..

- **Go to the Practice stack, then press ⌘-Shift-E on the keyboard.**

  A size box appears on the lower-right corner of the card. Drag the size box to make the card smaller. Then click the zoom box (on the right side of the title bar) to return the window to full size.

Exploring

You have the technical skills you need to handle almost any new stack you might come across. But to make the most of them, you need more than just technical skills—you need a strategy.

This chapter will teach you a six-step strategy for exploring new stacks:

- Open a copy of the stack.
- Experiment with the stack.
- Check out the menus.
- Find any hidden buttons.
- Find all the fields.
- Look for help.

You'll also learn how to get out of a stack when you want to, and you'll explore three stacks.

Practice with the Practice stack

In this section you'll apply the six-step strategy to the Practice stack.

Open a copy of the stack

The first step in the strategy is to open the stack. Before you open any stack, make sure you have a backup copy. (You already copied all the original stacks, including the Practice stack, onto your hard disk in Chapter 2. If anything goes wrong, you still have the original copies as backups.) To open the Practice stack, do the following:

1. **Go to the first Home card.**

   Choose the Home command from the Go menu and click the "Welcome to..." button at the bottom of the card.

2. **Click the Practice button.**

   The Practice stack opens.

Experiment with the stack

If a stack is well designed, you should be able to figure out how to use it intuitively. So before going any further, start clicking buttons and typing in fields. Do whatever seems right.

For the most part, you've already done that with the Practice stack. However, there's still one element of the stack that you haven't tried and that doesn't seem to have anything to do with addresses:

What's this?
Carol Gossard, Art Director
The Picture Group
New York, NY
(212) 555-2313
Directed the graphics program for last year's "MultiCultural USA" event.
Card 4 of 8
The Practice Stack
for Getting Started with HyperCard

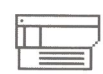
The best thing to do is try it out.

1. **Click the light bulb button.**

   Clicking the button displays information about the stack. Many of the stacks that come with HyperCard have a button with this icon. Click it to learn more about the stack.

2. **Click OK.**

Here are some of the commonly used button icons for standard types of buttons:

Moving within a stack	Moving between stacks and applications	Utilities	Information	Miscellaneous
Previous Card	Go Home	Sort	Stack Overview	Dial
Next Card	Go Home	Show All Cards	Help	
Previous Card	Open a Stack	Find	About the Stack	
Next Card	Open an Application	Print		
First Card	Go Back	 Print		
Last Card				

Check out the menus

After you've explored as much as you like, the third step of the strategy is to look at the menus. Many stacks add a menu at the right side of the menu bar with special commands for that particular stack. However, the Practice stack does not.

Find hidden buttons

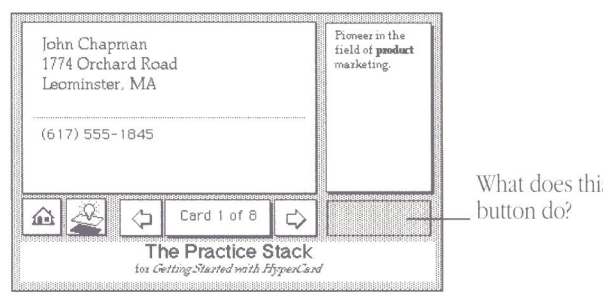
Sometimes you may fail to notice an important button. That's why the fourth step of the strategy has you look for hidden buttons.

In this exercise, you'll learn a technique for finding hidden buttons in the Practice stack. But be careful: The author of a stack may camouflage buttons for a good reason.

1. **Hold down the Option and ⌘ keys to outline all the buttons.**

△ **Important:** Do *not* click any buttons or fields while you have the Option and ⌘ keys depressed. If you do, you will see a dialog box containing the button's or field's script. If you do get such a dialog box, just click its close box to get rid of it. △

While the two keys are pressed, gray rectangles appear around the buttons. Four of the buttons are no surprise—you've already used the Home button, the light bulb button, and the two arrow buttons; but the fifth outlined button is a curiosity:



2. **Release the Option and ⌘ keys.**

3. **Click the invisible button to see what it does.**

   When you click the invisible button, the Message box opens with the Find message in it, as if you had chosen the Find command from the menu.

   Hiding a button as useful as this isn't a good idea. In a later chapter, you'll change the button's appearance to make it easier to use.

4. **Close the Message box.**

   Click its close box or choose the Message command from the Go menu.

Find the fields

You usually won't have much trouble with the fifth step of the strategy: finding the important fields. They're obvious in most stacks. But you can make sure you've found them all by using the Tab key. Try the technique with the Practice stack:

1. **Press the Tab key once.**

   The first field is selected.

2. **Press the Tab key several more times.**

   Each field is highlighted in turn—first the Name & Address field, then the Phone Number field, then the Notes field, and then the Name & Address field again. No surprises here: Those are the three fields you've already typed in.

As it happens, there are two more fields in the Practice stack: the field with the card's number in it and the field at the bottom that has the name of the stack in it. You'll learn more about fields like these later in this book.

Look for help

The sixth and last step of the strategy invokes the old adage, "When all else fails, read the instructions." In short, if the stack comes with a manual, read it. Or if it has Help buttons or menu commands, try them.

The Practice stack doesn't offer any way to get help except for the light bulb button, which you've already used.

Emergency exits

Sometimes you may decide you want to get out of a stack before the stack wants to let you go. If that's the case, here are two tricks that you'll find useful: making the menu bar reappear and using the keyboard to go Home.

Disappearing menu bars

Some stacks hide the menu bar for aesthetic reasons. Fortunately, it's easy to make the menu bar appear and disappear:

1. **Press ⌘–Space bar.**

   Hold down the ⌘ key while pressing the Space bar. The menu bar disappears.

2. **Press ⌘–Space bar again.**

   The menu bar reappears.

Going home

If all else fails, go Home. You already know two ways of going Home: You can click the Home button if the card has one, or you can choose the Home command from the Go menu. If those options aren't available (or even if they are), you can always press ⌘-H to go Home.

1. **Go to any stack besides the Home stack.**

   If you're on the Home card, click the Practice button.

2. **Press ⌘-H.**

   Hold down the ⌘ key while typing H. You return Home.

The Addresses stack

The Addresses stack is a full-featured electronic address book. In this exercise, you'll use the six-step strategy to explore it.

Getting ready: If you're already viewing the first Home card, start with step 1 now. If not, go Home and click the "Welcome to..." button.

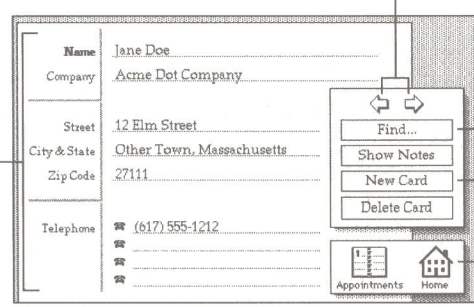
1. Open the Addresses stack by clicking its button.

Click here to open the Addresses stack.

2. Experiment with the stack.

Here are some guesses you could make:

Arrow buttons usually move you forward and backward through the stack. Try them.



Since this is an address book, the purposes of these fields seem clear.

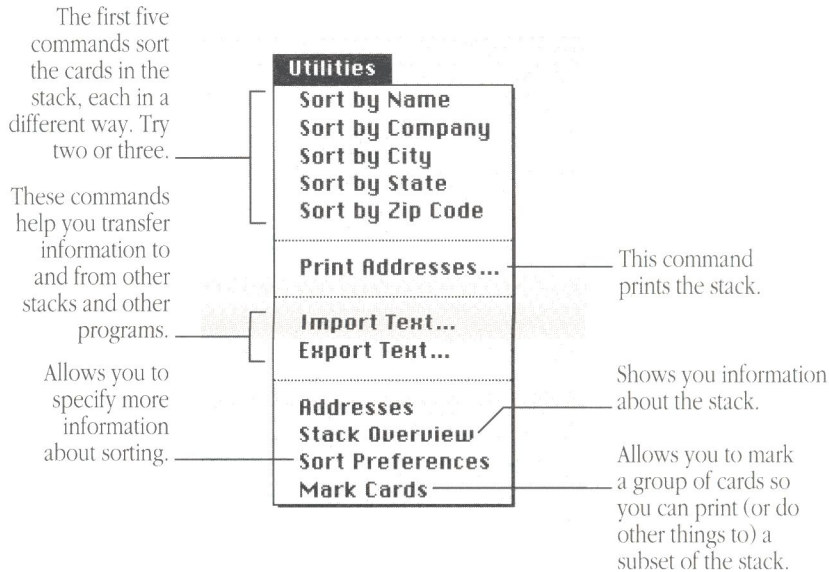
This looks like a button. Try it.

Click here to create a new blank card.

As you might guess, this button will take you back to the Home card.

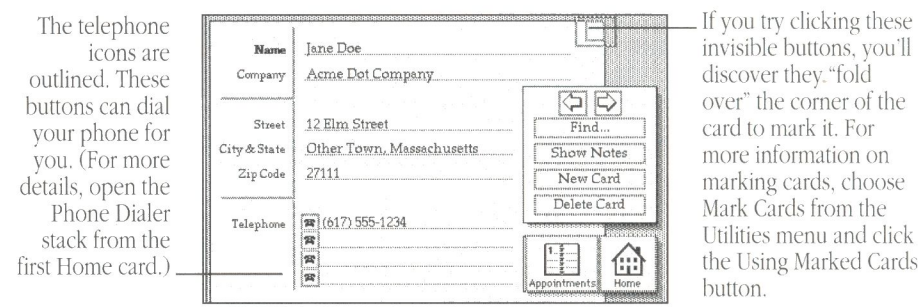
3. Investigate the Utilities menu.

The only way to investigate a menu is to look at it and try the commands to see if they do what you think they should. Try them yourself (though you might want to skip the Import Text and Export Text commands). Here's a quick summary:


The first five commands sort the cards in the stack, each in a different way. Try two or three.
These commands help you transfer information to and from other stacks and other programs.
Allows you to specify more information about sorting.
Utilities
Sort by Name
Sort by Company
Sort by City
Sort by State
Sort by Zip Code
Print Addresses...
Import Text...
Export Text...
Addresses
Stack Overview
Sort Preferences
Mark Cards
This command prints the stack.
Shows you information about the stack.
Allows you to mark a group of cards so you can print (or do other things to) a subset of the stack.

4. Find hidden buttons by holding down the ⌘ and Option keys.

Are there any other buttons you haven't seen yet? Hold down the ⌘ and Option keys to see if anything surprising gets outlined.


The telephone icons are outlined. These buttons can dial your phone for you. (For more details, open the Phone Dialer stack from the first Home card.)
Name
Jane Doe
Company
Acme Dot Company
Street
12 Elm Street
City & State
Other Town, Massachusetts
Zip Code
27111
Telephone
(617) 555-1234
Find...
Show Notes
New Card
Delete Card
Appointments
Home
If you try clicking these invisible buttons, you'll discover they "fold over" the corner of the card to mark it. For more information on marking cards, choose Mark Cards from the Utilities menu and click the Using Marked Cards button.

5. **Keep pressing the Tab key until you've found all the fields.**

   Keep pressing the Tab key until you've found all three fields.

6. **Look for help.**

   If you haven't looked at the Stack Overview yet, try it now. When you're done reading, click the Return to Addresses button.

The Appointments stack

There's one button in the Addresses stack you haven't yet tried. It's the Appointments button at the bottom right. As it happens, the button is linked to another stack, which you'll explore in this exercise.

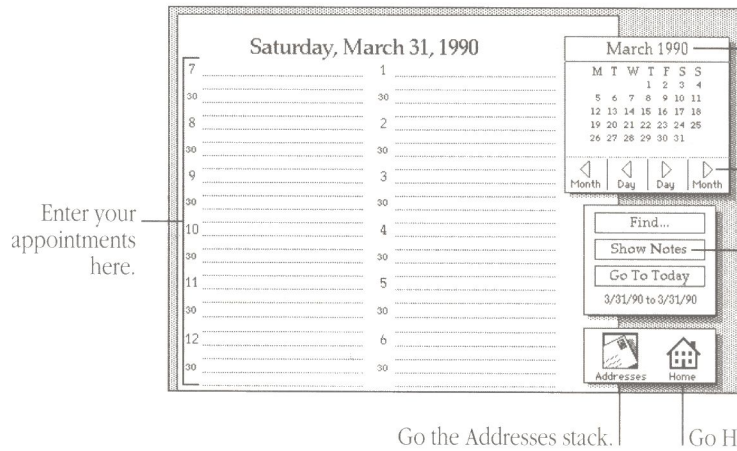
Getting ready: If you're viewing any card in the Addresses stack, start now with step 1. If not, go Home, click the "Welcome to..." button, and click the Addresses button.

1. **Open the Appointments stack by clicking its button.**

(The same button is on the first Home card.)

2. Experiment with the stack.

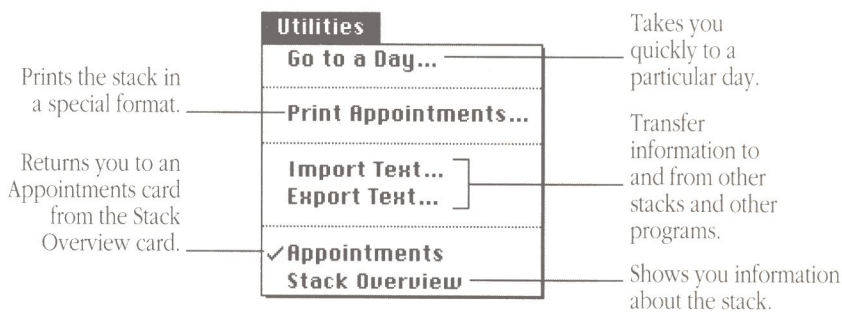
Appointment books must include a system for entering appointments on particular months or days, and many of the features of the stack are dedicated to this purpose:


Saturday, March 31, 1990
March 1990
M T W T F S S
1 2 3 4
5 6 7 8 9 10 11
12 13 14 15 16 17 18
19 20 21 22 23 24 25
26 27 28 29 30 31
Month
Day
Day
Month
Find...
Show Notes
Go To Today
3/31/90 to 3/31/90
Addresses
Home
Enter your appointments here.
A month at a glance.
These buttons move you back and forth through the calendar.
The Show Notes button gives you a place to put diary entries or other notes.
Go the Addresses stack.
Go Home.

At first this stack has only one card, the one for today. When you ask to go to a new day or month by clicking the arrow buttons, the stack will ask if you want to add more cards. Click Yes and the stack will automatically add another month's worth of cards.

3. Investigate the menus.

Pull down the Utilities menu and try some of the commands.


Utilities
Go to a Day...
Print Appointments...
Import Text...
Export Text...
✓Appointments
Stack Overview
Takes you quickly to a particular day.
Prints the stack in a special format.
Transfer information to and from other stacks and other programs.
Returns you to an Appointments card from the Stack Overview card.
Shows you information about the stack.

4. **Find hidden buttons.**

   There are none.

5. **Find the fields.**

   By pressing the Tab key you'll discover there are only two fields, one for each column of appointments.

6. **Look for help.**

   The only help is the Stack Overview command in the Utilities menu.

The Puzzle stack

The Puzzle stack, as you might expect, is a HyperCard version of a picture puzzle. The most important lesson to learn from this section is that your intuition is the most valuable asset in exploring a new stack.

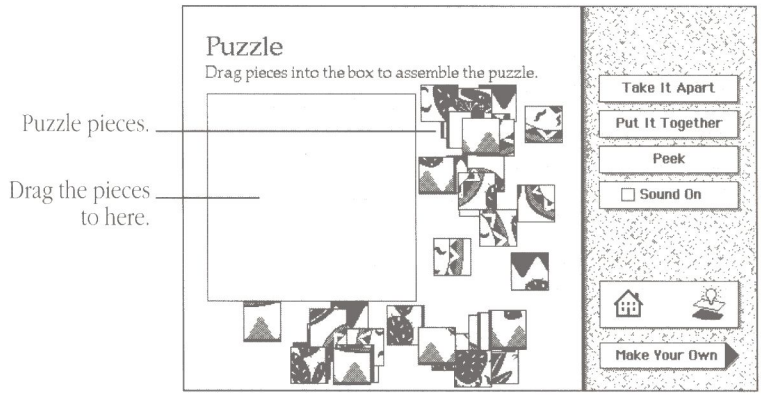
Getting ready: If you're already viewing the first Home card, start with step 1 now. If not, go Home and click the "Welcome to..." button.

1. **Open the Puzzle stack by clicking its button.**

Click here to open the Puzzle stack.

2. **Experiment with the stack.**

   Since this is a puzzle, the idea must be to put the pieces together. Try dragging the pieces to solve the puzzle:



If you get frustrated, try the Peek button.

3. **Investigate the menus.**

   This stack has no special menus.

4. **Find the hidden buttons.**

   When you hold down the ⌘ and Option keys, all the puzzle pieces are outlined. As it happens, each piece is a button, but these are buttons that you drag instead of click!

   In the end, searching for hidden buttons in the Puzzle stack doesn't help you. That's the way it is with the best-designed stacks: Your own intuition is the best tool.

5. **Find the fields.**

   The Tab key yields no special information. There are no fields that you can type into.

6. **Look for help.**

   The only help available is the light bulb button at the bottom of the card.

   When you're done reading the Stack Overview card, click the Return to Puzzle button. When you're finished playing with the puzzle, return Home.

Tinkering with Stacks

Once you're comfortable exploring stacks created by other people, you can start learning how to change old stacks and create new ones to meet your own needs. This process is called *authoring* stacks.

In this chapter you'll enhance the Practice stack and rearrange it so it can fit in a smaller window.

Tools of the trade

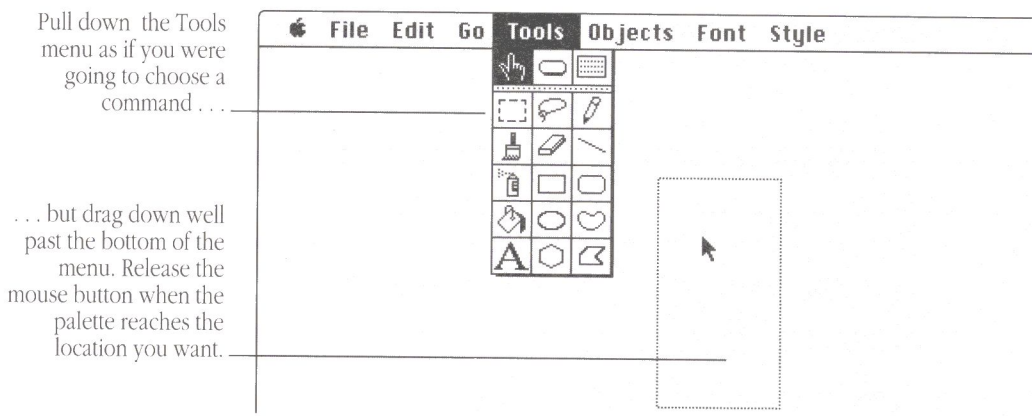
To start authoring you'll need tools and commands you haven't used before. Most of the important ones are in the Tools and Objects menus. You'll learn about many of the specific tools and commands later in this book.

The Tools menu is special for two reasons: It has icons rather than words, and you can "tear it off" the menu bar and move it around the screen, as shown in the exercise that follows.

Getting ready: If the Tools menu is visible on your menu bar, you can begin now with step 1. If you don't have a Tools menu, you need to change your user level as described in "The Preferences Card" in Chapter 4.

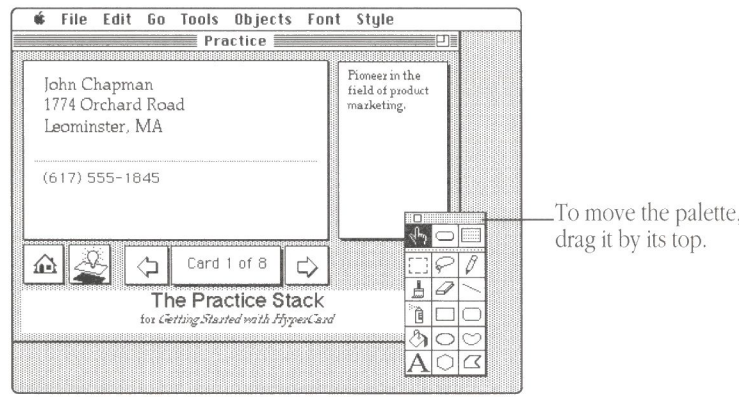
1. **Go to the Practice stack.**

2. **Tear off the Tools menu as shown here:**


Pull down the Tools menu as if you were going to choose a command . . .
. . . but drag down well past the bottom of the menu. Release the mouse button when the palette reaches the location you want.
File Edit Go Tools Objects Font Style

When the Tools menu is torn off, it is called the *Tools palette.*

3. **Drag the Tools palette by its top to the bottom-right corner of the screen.**


File Edit Go Tools Objects Font Style
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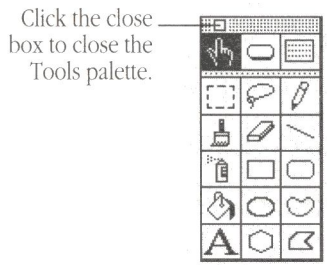
To move the palette, drag it by its top.

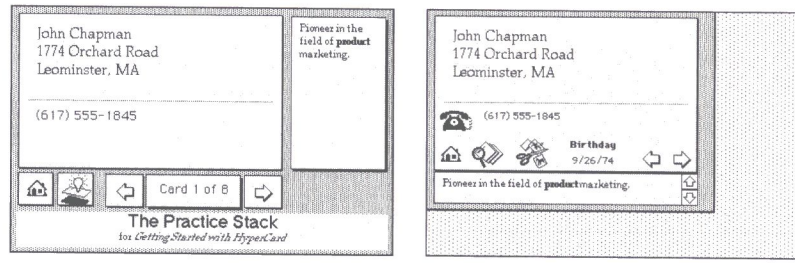
4. **Close the palette by clicking its close box.**



Since the close box is small, make sure you have the *tip* of the arrow in the box before you click.

The plan

The goal of this chapter is to teach you the techniques you need to author stacks. You'll learn these techniques by completing a set of exercises that will enhance the Practice stack and make it fit into a smaller window:



Before After

Preparations

Before you begin, there are two things you must do: Make a new copy of the stack so you don't mess up the old one, and create a button on the Home stack to take you to the copy.

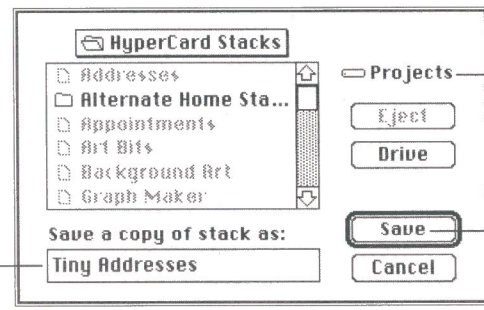
Saving a copy

Whenever you're about to make major changes to a stack, you should make a copy of the stack in case you make a mistake that's difficult to correct. You can choose whether you want to change the original stack or the copy. (It doesn't really matter.) In this exercise you'll create the copy, which you'll proceed to change in the following exercise.

Getting ready: Go to the Home card called "Welcome to HyperCard."

1. **Go to the Practice stack.**
2. **Choose Save a Copy from the File menu.**

3. **To enter the new name, type `Tiny Addresses` and click Save.**



You now have two copies of the same file on your disk: Practice and Tiny Addresses. You're still looking at the Practice stack, which is the original.

4. **Go Home.**

   Click the Home button *or* choose Home from the Go menu *or* press ⌘-H.

Adding a new button to the Home stack

To make it easier to open your new stack, you'll create a new button on the first card of the Home stack that takes you to the new stack.

Getting ready: Go to the Home card called "Welcome to HyperCard."

1. **Choose the New Link to Stack command from the Home menu.**

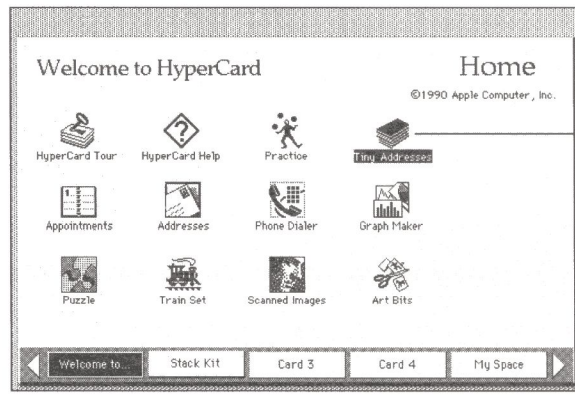
   A directory dialog box appears.

   The New Link to Stack command, which is available only in the Home stack, allows you to create new buttons that can take you to stacks.

2. **Double-click the name "Tiny Addresses."**

   You may have to use the scroll bar to find it. The new button appears, flashing, in the middle of the card.

3. **Drag the new button into position:**



If you make a mistake—either by choosing the wrong stack or by moving the new button to an inconvenient location—you need to delete the button: Choose the Button tool (⬭) from the Tools menu; click the button once; press the Delete or Backspace key; then choose the Browse tool (☝). To try again, go back and start with step 1.

4. **Try the new button.**

   Click the new Tiny Addresses button. Look at the title bar to make sure you've opened the new stack: It should say Tiny Addresses.

Backgrounds

If you look at the pictures in "The Plan" at the beginning of this chapter, you'll notice there are a lot of changes to make. If you had to make those changes on each of the eight cards in the stack, it would take a long time.

Fortunately, thanks to the HyperCard concept of *background*, you only have to make the changes once. In the two exercises in this section you'll learn more about backgrounds and how to distinguish what's in the background from what's on the card.

Examining a background

A background contains the elements that a number of cards have in common. This exercise will illustrate the concept.

Getting ready: Make sure you're viewing the Tiny Addresses stack.

1. **Click the right arrow button until you see Andrew's card; notice what the different cards have in common.**

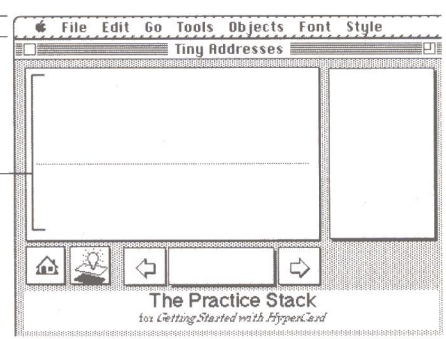
   Andrew's card is the sixth card of the stack.

   The cards in this stack have more similarities than differences. In fact, about all that changes from card to card is the text. The rest—the three buttons, the arrangement of the fields, and the gray paint—stays the same. That's the idea of a background. A background is the sum of all the things the cards have in common.

2. **Choose Background from the Edit menu.**

The stripes in the menu bar remind you that you're viewing the background.

Notice that there's no text and no picture of a pencil. The text and the pencil are on the card, *not* in the background.



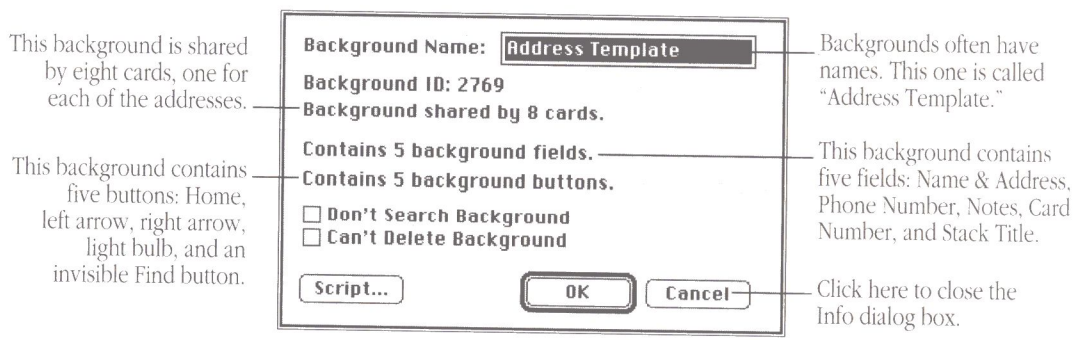
When you choose the Background command, HyperCard hides the card and shows just the background.

3. **Choose Background from the Edit menu again.**

   (If you prefer, you can use the keyboard shortcut ⌘-B.) Choosing the command a second time lets you see the card again. The stripes disappear from the menu bar.

4. **Choose Bkgnd Info from the Objects menu.**

   HyperCard displays a dialog box with information about the background you're viewing.


This background is shared by eight cards, one for each of the addresses.
This background contains five buttons: Home, left arrow, right arrow, light bulb, and an invisible Find button.
Background Name: Address Template
Background ID: 2769
Background shared by 8 cards.
Contains 5 background fields.
Contains 5 background buttons.
Don't Search Background
Can't Delete Background
Script...
OK
Cancel
Backgrounds often have names. This one is called "Address Template."
This background contains five fields: Name & Address, Phone Number, Notes, Card Number, and Stack Title.
Click here to close the Info dialog box.

5. **Click Cancel.**

An experiment: cards versus backgrounds

To give you a better understanding of the difference between a card and a background, these two exercises will have you spray paint a Z on the card and then in the background.

Spray painting a card

In this exercise you'll spray paint a card and discover that the change is visible on that card only.

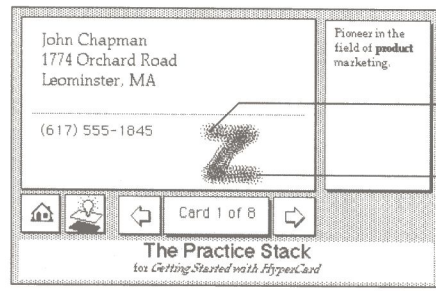
Getting ready: Make sure you're viewing the Tiny Addresses stack.

1. **Go to the first card.**

   Choose First from the Go menu.

2. **Choose the Spray tool ( ) from the Tools menu.**

3. **Spray paint a Z in the phone number area.**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Hold down the mouse button here and . . .
. . . draw a Z, finishing here.

4. **Choose the Browse tool ( ) from the Tools menu.**

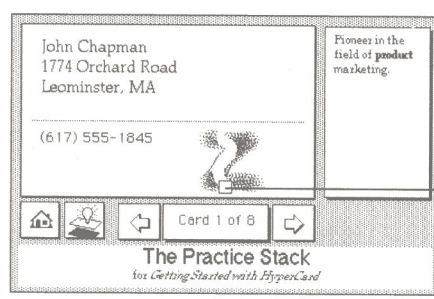
   If you like shortcuts, you can press ⌘-Tab whenever you want to select the Browse tool.

5. **Look at the next card and then return to the first card.**

   Click the right arrow and then the left arrow. Notice that the spray paint appears only on the card on which you painted it.

6. **Choose the Eraser tool ( ) from the Tools menu.**

7. **Erase your spray paint.**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The Eraser tool will erase any paint underneath the pointer as long as the mouse button is down.

Spray painting a background

Now you'll make the same mark in the background and discover that the change is visible on every card.

1. **Choose Background from the Edit menu.**

   The Background command hides the card's text and allows you to edit the background. It also puts stripes in the menu bar.

2. **Spray paint a Z in the same place as before.**

   Choose the Spray tool ( ) from the Tools menu again and paint a Z on the lower part of the phone number area.

△ **Important:** Be careful to spray paint only the white part of the card. If you accidentally get paint anywhere else, immediately choose Undo from the Edit menu. △

3. **Choose Background from the Edit menu.**

   The stripes in the menu bar disappear.

4. **Choose the Browse tool ( ) from the Tools menu and look at the next card and the one after that.**

   Click the right arrow a few times. Note that by painting the background rather than the card, your change affects all the cards.

5. **Choose the Eraser tool ( ) from the Tools menu and try to erase your spray paint. (You won't be able to erase it.)**

   Because the paint is in the background rather than on the card, you must choose the Background command before you can erase it.

6. **Choose Background from the Edit menu.**

   Stripes appear in the menu bar.

7. **Erase your spray paint.**

   Now you can erase the Z. But be careful not to erase any of the other paint in the background. If you do accidentally erase something other than your Z, immediately choose Undo from the Edit menu.

8. **Choose Background from the Edit menu.**

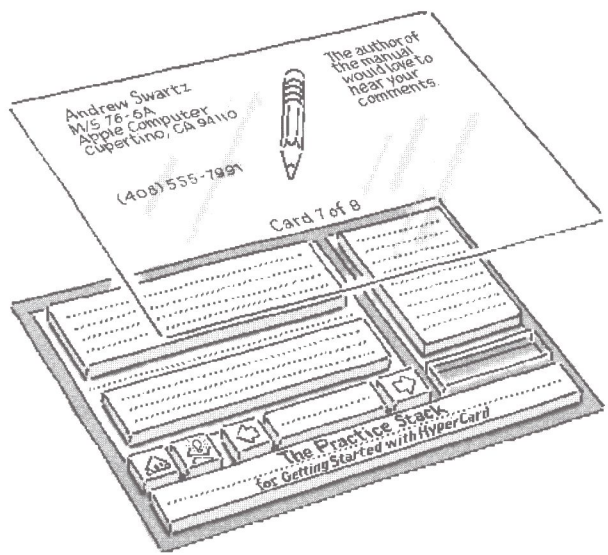
   The stripes in the menu bar disappear.

9. **Choose the Browse tool (☝) from the Tools menu again.**

   You need the Browse tool to click buttons and type text.

Summary: card layer versus background layer

In short, what you see when you look at a card is a composite of two layers: the *background layer* (which contains the elements shared by all the cards) and the foreground or *card layer* (which contains only the elements unique to each card).



Tinkering with buttons

There's no special order in which you have to make changes. For the sake of convenience, the exercises that follow start with the changes to buttons.

Before you begin, you might want to look at the section called "The Plan" at the beginning of this chapter to see all the changes that you need to make.

Deleting the light bulb button

You'll start by deleting the light bulb button. In general, the way you delete things on the Macintosh is to select them and then press the Delete or Backspace key. The same is true for deleting HyperCard buttons.

Getting ready: Make sure you're viewing the Tiny Addresses stack.

1. **Choose the Button tool (⬭) from the Tools menu.**

   To modify buttons, you must use the Button tool. While you use the Button tool, the pointer will be arrow-shaped and you won't be able to type in fields or make buttons do what they're programmed to do.

2. **Click the light bulb button *once* to select it.**

   When a button is selected, it's framed by a moving dashed line, sometimes called "marching ants."

   Notice that the button doesn't do what it normally does—it doesn't give you an overview of the stack. Instead, clicking a button with the Button tool selects it.

3. **Press the Delete or Backspace key.**

   The button disappears.

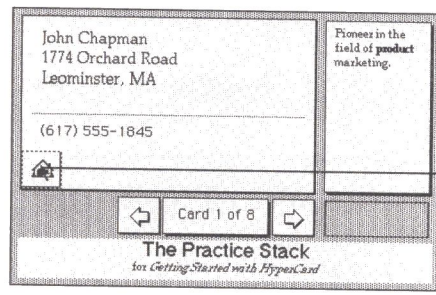
❖ *A good question:* Since this button was in the background, why didn't you first have to choose the Background command to delete it? You could do just that, but as a shortcut, HyperCard allows you to edit existing buttons and fields without first choosing the Background command. ❖

Moving the Home button and changing its style

Next you'll move the Home button onto the white part of the card and change its size and style. (You'll also take a look at some instructions written in the HyperTalk script language.)

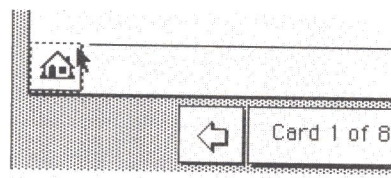
Getting ready: Make sure you're viewing the Tiny Address stack and using the Button tool (▭) from the Tools menu.

1. Drag the Home button to its new location.



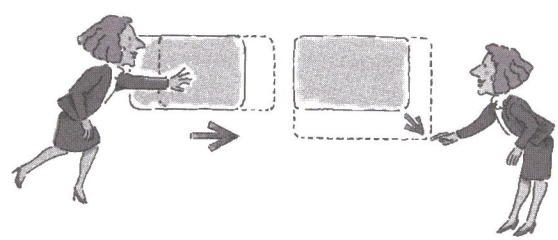
Make sure you're using the Button tool, then place the pointer over the *middle* of the button and drag it to here.

2. Drag the button's corner to make it smaller.



Drag the upper-right corner until the button is this size.

Remember the general rule that, on the Macintosh, to move something you drag its middle; to change its shape, you drag its corner: middle to move and corner to change.

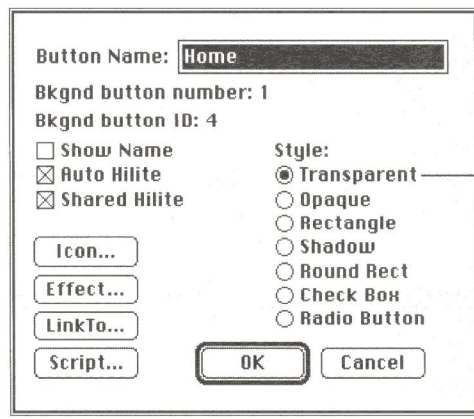


3. **Choose Button Info from the Objects menu.**

The button's Info dialog box appears, as shown in the next step.

If the Button Info command is dimmed, it means the button isn't selected any more. Click the button once to select it.

4. **Click Transparent to change the button's style.**

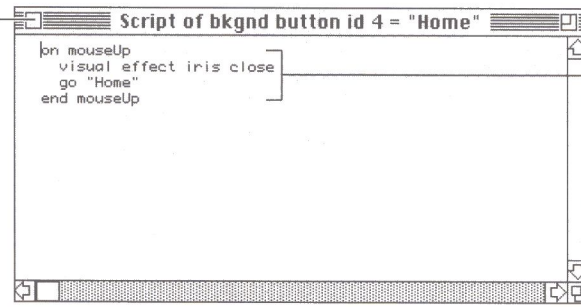


Changing the style changes the appearance of the button. In this case the shadowed box is removed.

5. **Click the Script button to see the script.**

   Buttons usually have scripts that tell them what to do when they're clicked. You don't have to know anything about scripts, but here's one for the sake of curiosity:

After you're finished looking, click the close box.



This script says that when the button is clicked, HyperCard should open the Home stack using a special visual effect.

6. **Click the close box to close the script.**

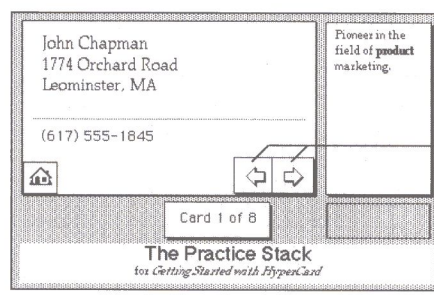
   If HyperCard asks whether you want to save changes, click No.

Rearranging the arrow buttons

Now you'll move the two arrow buttons to their new locations, make them smaller, and change their style to Transparent.

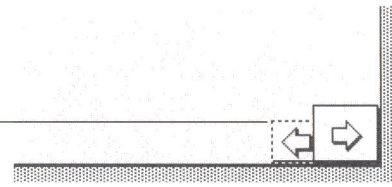
Getting ready: Make sure you're viewing the Tiny Addresses stack and using the Button tool (⬭).

1. **Drag each arrow button to its new location:**



Drag the arrow buttons by their middles to these locations.

2. **Make the left arrow button smaller.**



3. **Make the right arrow button smaller.**

   Repeat the process with the right arrow button.

4. **Double-click the left arrow button to open its Info dialog box.**

   Double-clicking a button with the Button tool is a shortcut for selecting it and choosing the Button Info command.

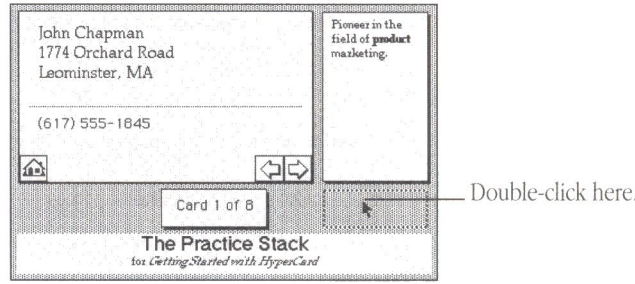
5. **Click Transparent and then click OK.**

6. **Similarly, open the right arrow's Info dialog box, set its style to Transparent, and then click OK.**

Improving the Find button

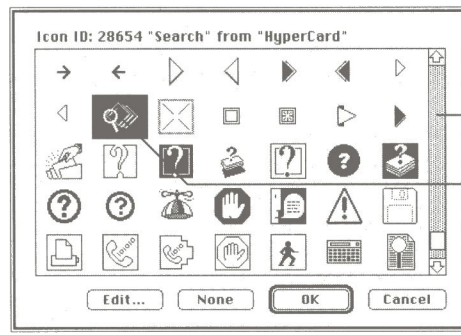
In this exercise you'll assign the invisible Find button an icon and move it into place.

1. **Double-click the invisible Find button to open its Info dialog box.**



2. **Click the Icon button in the Info dialog box.**

3. **Select the appropriate icon.**



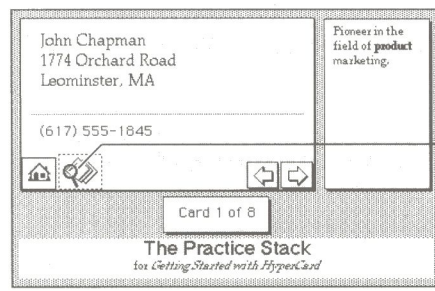
Use the scroll bars to find the Search icon . . .

. . . then click the icon to select it. (Your Icon dialog box may look different.)

4. **Click OK.**

   The icon appears on the button.

5. **Move the button into place and resize it:**



Move the button to here and adjust its size.

Remember, you move the button by dragging its middle and change its size by dragging one of its corners.

Copying the Dial button

One easy way to enhance your stack is to borrow work done by others. In this section you'll turn your stack into an automatic dialer by copying a button from another stack.

Copying the button

Start by finding and copying the button.

1. **Choose the Browse tool (☝) from the Tools menu.**
2. **Go Home.**
3. **Go to the Stack Kit card.**

   Click the Stack Kit button at the bottom of the card.
4. **Click Readymade Buttons.**

   The Readymade Buttons stack contains buttons you can use in your stack.
5. **Click "Do various things" to get to the card with the Dial button on it.**
6. **Choose the Button tool (▭) from the Tools menu.**
7. **Click the Dial button once to select it.**

8. **Choose Copy Button from the Edit menu.**

   Be careful to select the Copy Button command, *not* the Cut Button command.

Pasting the button

Now return to the Tiny Addresses stack, paste the button, and move it into place.

1. **Use the Recent command to return to the Tiny Addresses stack.**

   Choose Recent from the Go menu and click any miniature picture that looks like it's from the Tiny Addresses stack.

   Be careful. Your Tiny Addresses stack still looks a lot like the original Practice stack. Check the title bar to be sure you're in the correct stack. If not, try the Recent command again.

2. **Choose Background from the Edit menu.**

   Make sure you see the stripes in the menu bar.

   Since this button should be shared by all the cards in the stack, you should paste it in the background.

3. **Choose Paste Button from the Edit menu.**

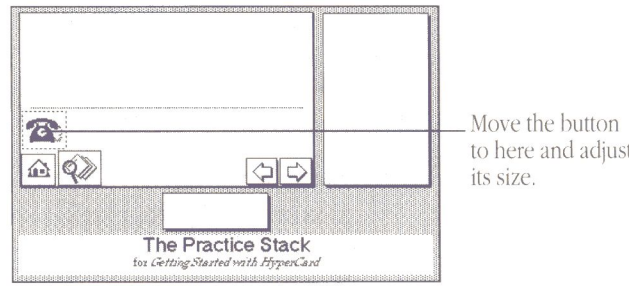
   The button appears in the background.

4. **Double-click the button to open its Info dialog box.**

5. **Click the Show Name check box to deselect it, and then click OK.**

   When you click the Show Name check box, the X disappears from the box. This tells HyperCard not to place the button's name under the icon.

6. **Move the button into place and resize it.**



7. **Choose Background from the Edit menu.**

   You leave the background layer and the stripes disappear from the menu bar.

8. **Choose the Browse tool (☝) from the Tools menu to see how it all looks.**

   The new Dial button partially obscures the phone number, but you'll fix that in a later exercise.

Adding a button linked to Art Bits

The final change you'll make with the Button tool is to add a button that can take you to the Art Bits stack so you can quickly search for art to paste on the cards.

Creating the button

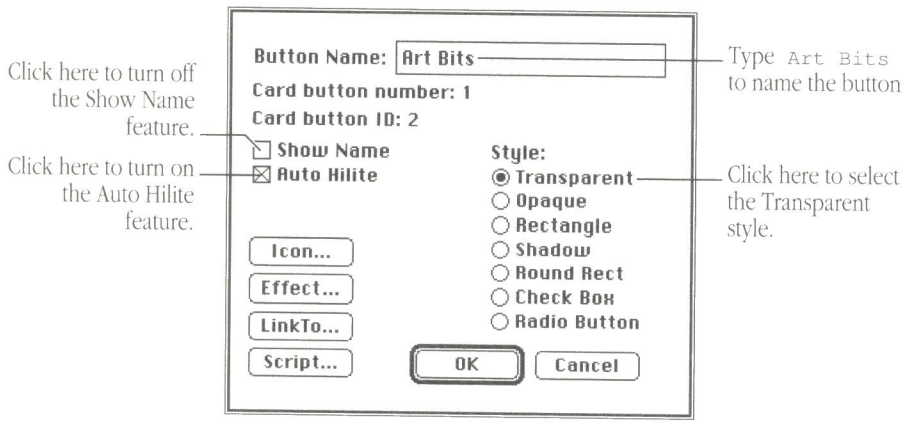
Start by creating the button and specifying its appearance.

1. **Choose New Button from the Objects menu.**

   HyperCard places the button in the middle of the card.

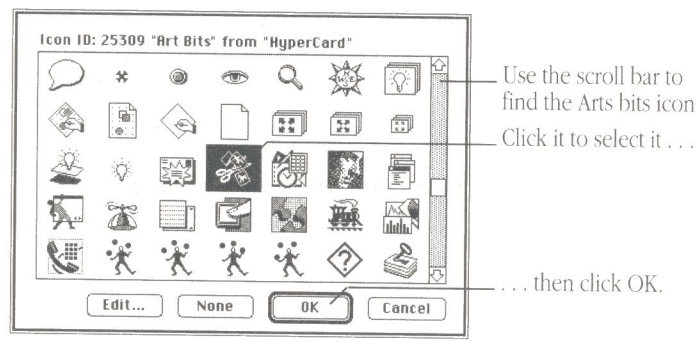
2. **Double-click the button to open its Info dialog box.**

3. Set the button's attributes as follows:



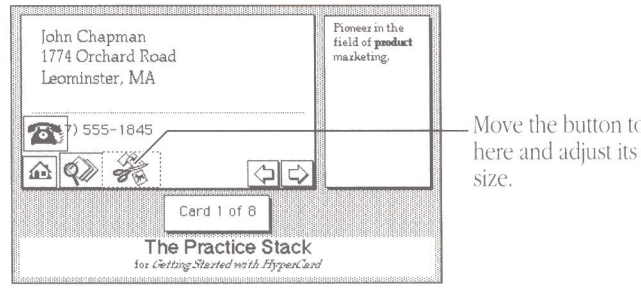
4. Click the Icon button.

5. Select the Art Bits icon and click OK.


Icon ID: 25309 "Art Bits" from "HyperCard"
Edit...
None
OK
Cancel
Use the scroll bar to find the Arts bits icon.
Click it to select it . . .
. . . then click OK.

The icon appears partially clipped off inside the new button.

6. **Move the button into place and resize it.**


John Chapman
1774 Orchard Road
Leominster, MA
Pioneer in the field of product marketing.
) 555-1845
Move the button to here and adjust its size.
Card 1 of 8
The Practice Stack
for Getting Started with HyperCard

Creating the link

So far, you have a beautiful button that doesn't do anything. By creating a link you'll make the button work.

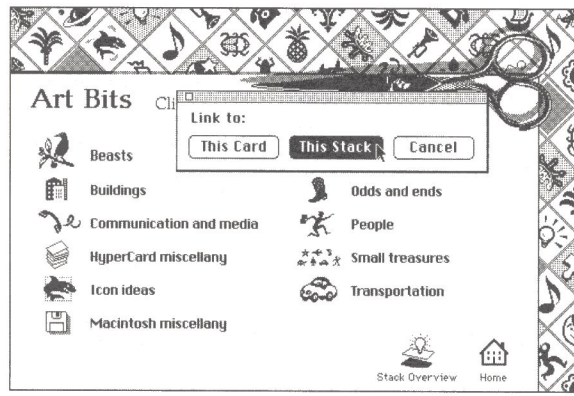
Getting ready: Make sure you still have the Button tool (⬭) selected.

1. **Double-click the new button to open its Info dialog box.**
2. **Click the LinkTo button.**

   When you click the LinkTo button, HyperCard needs to know which card or stack you wish to make the link to. To let you know it's waiting for you to complete the action, it displays the LinkTo box:

   You'll specify that you want a link to the Art Bits stack by opening the Art Bits stack with the Open Stack command, as described in the next steps.

3. Choose Open Stack from the File menu.
4. Double-click "Art Bits" to open the stack.
5. Click "This Stack" to complete the link.



Testing the button

In this exercise you'll test the button and discover that you placed the button on the card instead of in the background. In the next exercise you'll correct the mistake.

1. **Choose the Browse tool (☝) from the Tools menu.**
2. **Click the new button to test it.**

   The Tiny Addresses stack should close and the Art Bits stack should open.

If the button did *not* work correctly, return to the Tiny Addresses stack, choose the Button tool (⬭), click your button once, and press the Delete or Backspace key. Then start this section ("Adding a Button Linked to Art Bits") again.

3. **Choose Back from the Go menu to return to the Tiny Addresses stack.**
4. **Go to the next card by clicking the right arrow button.**

   Whoops! If you followed the directions in this book, you should have discovered that your new button isn't on the next card. Why? You created the button on the card instead of in the background.

   That's one of the most common mistakes stack authors make. The next exercise will show you how to correct it.

5. **Go back to the card with the Art Bits button on it.**

   Click the left arrow button.

Moving the button from the card to the background

To move the button from the card to the background, you need to select it, cut it, go to the background, and paste it.

1. **Choose the Button tool (⬭) from the Tools menu.**
2. **Click the Art Bits button to select it.**
3. **Choose Cut Button from the Edit menu.**

   The button disappears.
4. **Choose Background from the Edit menu.**
5. **Choose Paste Button from the Edit menu.**
6. **Choose the Browse tool (☝) from the Tools menu.**
7. **Choose Background from the Edit menu.**

   The stripes disappear from the menu bar.
8. **Go to the next card to make sure it worked.**

   The button now appears on all the cards.

Because moving objects from the card to the background is one of the most common mistakes stack authors make, you might want to fold down the corner of this page so you can find these instructions easily. Remember the strategy: select, cut, background, paste.

Tinkering with fields

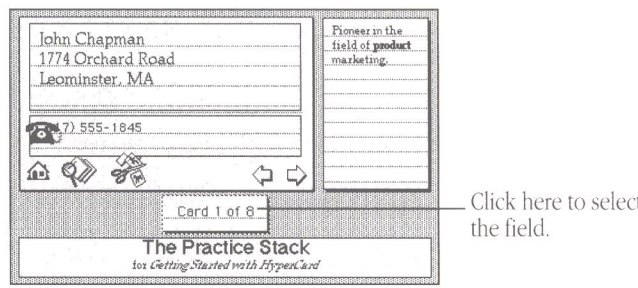
Now that you have the buttons as they should be, it's time to start on the fields. Once again, you might want to go back and look at the section called "The Plan" at the beginning of the chapter to see the changes that you need to make.

Deleting the card number field

The plan doesn't call for a card number field, so you'll delete it in this exercise. Deleting HyperCard fields is similar to deleting HyperCard buttons and other objects in Macintosh programs. You select the object and then press the Delete or Backspace key.

Getting ready: Make sure you're in the Tiny Addresses stack.

1. **Choose the Field tool (▤) from the Tools menu.**
2. **Click the Card Number field once.**



As a shortcut, HyperCard allows you to select and manipulate background fields even when you're not in the background.

3. **Press the Delete or Backspace key.**

When you delete a background field, you also delete all the text typed into it for *every card in the stack* that shares the same background. Because deleting a background field by mistake can be a catastrophe, HyperCard asks if you're sure.

▲ **Warning:** Make sure you've selected the right field before allowing the field to be deleted. You cannot undo the deletion. ▲

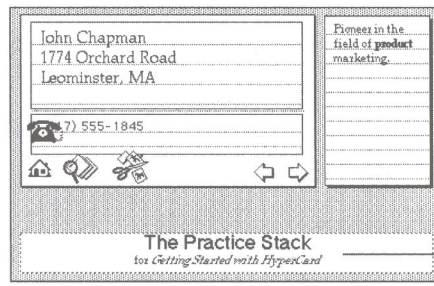
4. **Click Delete to confirm your decision.**

Delete the Stack Title field

You also need to delete the field at the bottom of the card—the one with the stack's title in it.

Getting ready: Make sure you're still in the Tiny Addresses stack and that you still have the Field tool (▤) selected.

1. **Click the Stack Title field once.**



2. **Press the Delete or Backspace key.**
3. **Click Delete to confirm your decision.**

Modifying the Phone Number field

You need to make the Phone Number field smaller, so it's a good idea to reduce the font size as well.

Getting ready: Make sure you're still in the Tiny Addresses stack and that you still have the Field tool (▤) selected.

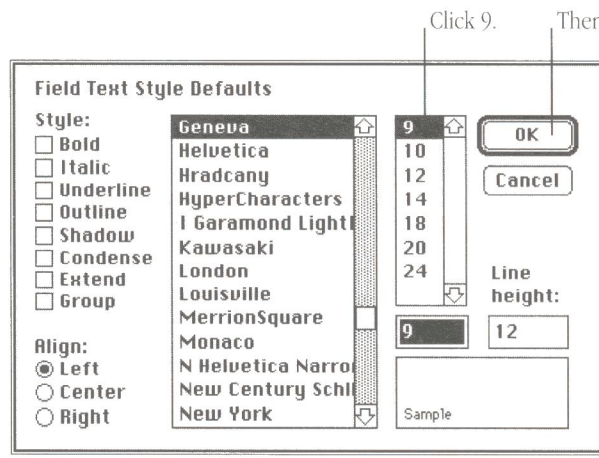
1. **Double-click the Phone Number field to open its Info dialog box.**

   This is the same as selecting the field and choosing Field Info from the Objects menu.

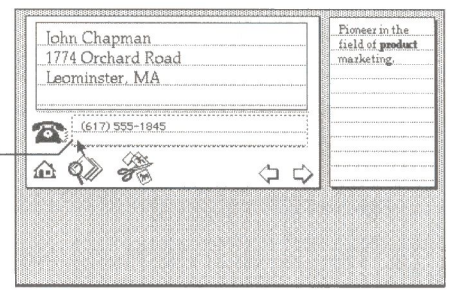
2. **Click the Font button.**

   The Text Style dialog box appears.

3. Click 9 and then click OK to change the size.



4. Drag the lower-left corner of the Phone Number field up and to the right until the field is the correct size:



Drag the corner of the field so it isn't covered by the telephone and has room for two lines of

Creating the Birth Date field

The plan for the Tiny Addresses stack calls for a field in which you can type people's birthdays. In the next two exercises, you'll create the field and test it by filling in some dates.

Creating the field

In this exercise you'll create the field.

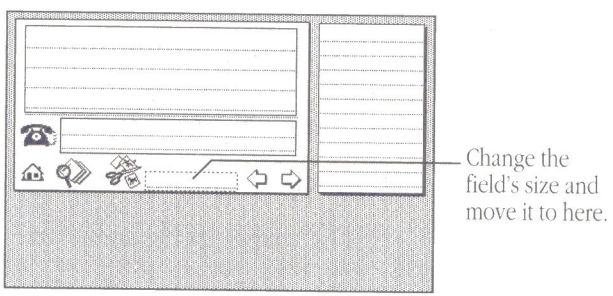
1. **Choose Background from the Edit menu.**

   To put the birthday field on all the cards, you must create it in the background. You can confirm you're working in the background by making sure the menu bar is striped.

2. **Choose New Field from the Objects menu.**

   HyperCard places a new field in the middle of the window.

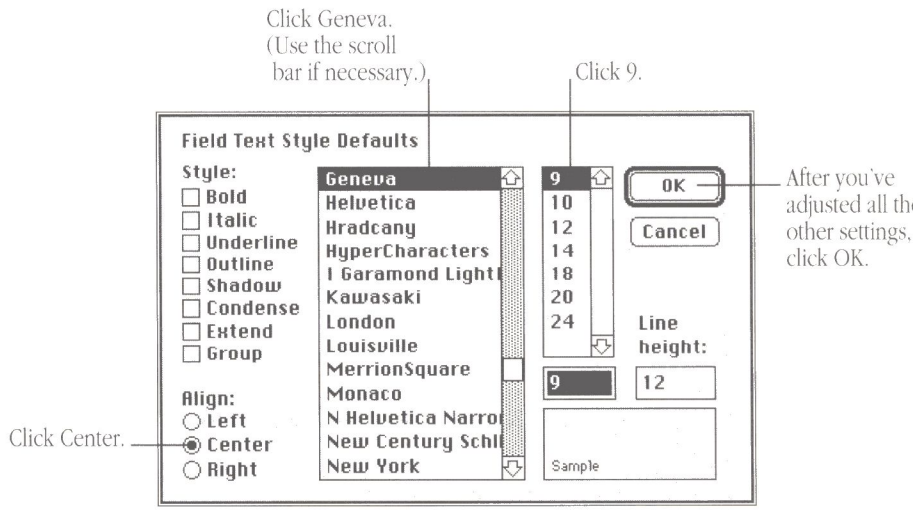
3. **Resize the field and move it into position.**



   The field should be small, just tall enough to fit one line of 9-point type.

4. **Double-click the new field to open its Info dialog box.**
5. **Click Transparent to set the button's style.**
6. **Type `Birth Date` to name the field.**
7. **Click Font.**

8. **Set the text style for the field as follows:**



Using the field

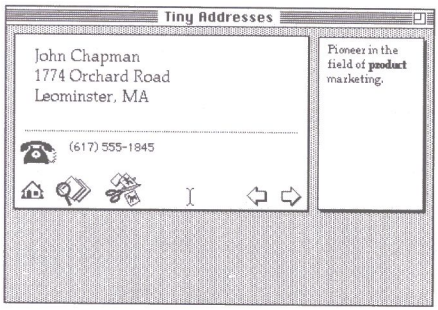
In this exercise you'll type some dates in your new field to test it.

1. **Choose the Browse tool (✋) from the Tools menu.**
2. **Choose Background from the Edit menu.**

   The stripes in the menu bar disappear.
3. **Choose First from the Go menu.**

   You return to John Chapman's card, the first in the stack.

4. **Click once in your new field.**



The insertion point begins to blink.

5. **Type** `9/26/74`
6. **Move to the next card.**

   Click the right arrow.
7. **Click your new field.**
8. **Type** `1/3/58`

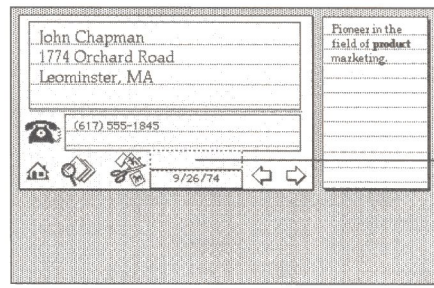
Creating the label for the Birthday field

According to the plan, the word "Birthday" should be above the field that contains the birth date. When you need to put text on the background, you have two choices: you can either paint it or use a *shared text* field. (See Chapter 5 of the *HyperCard Reference* for details on the considerations involved in the choice.) In this case you'll make the label a shared text field.

Duplicating a field

Instead of creating the field from scratch, you'll make a duplicate of the Birth Date field and modify the duplicate as necessary.

1. **Choose the Field tool (▤) from the Tools menu.**
2. **Press and hold the Option and Shift keys while you drag the field up.**


John Chapman
1774 Orchard Road
Leominster, MA
(617) 555-1845
9/26/74
Pioneer in the field of product marketing.
While holding down the Option and Shift keys . . .
. . . drag the Birth Date field by its middle and place the resulting new field here.

Dragging the field while you hold down the Option key creates an exact duplicate of the field. Dragging the field while you hold down the Shift key restricts your movement of the field to either straight up and down or straight left and right. Dragging the field while you hold down both keys produces both effects.

△ **Important:** Be careful not to duplicate the field more than once. Every time you click the field while the Option key is depressed, you'll create another field, so every false start creates an extra field. Delete any extra fields by selecting them and then pressing the Delete or Backspace key. △

3. **Double-click the new field to open its Info dialog box.**
4. **Type `Birthday Label` to name the field.**

5. **Click Shared Text.**

   When you click Shared Text, the Don't Search check box is automatically selected as well.

6. **Click Font.**

7. **Click Bold and then click OK.**

Putting the text in a shared text field

You enter and edit text in a shared text field by using the Browse tool in the Background, as illustrated in this exercise.

Getting ready: Make sure you're viewing the Tiny Addresses stack.

1. **Choose Background from the Edit menu.**

   You should see stripes in the menu bar.

2. **Choose the Browse tool (✋).**

   You need the Browse tool to type in the field.

3. **Press the Tab key once.**

   The insertion point will blink in the shared text field.

4. **Type** `Birthday`

5. **Choose Background from the Edit menu to return to the card layer.**

   The stripes disappear from the menu bar.

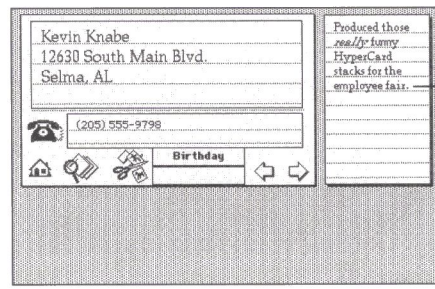
6. **Look at a few cards to make sure the text is in fact shared.**

   Click the left and right arrow buttons to move forward and back.

Rearranging the Notes field

The last change you have to make to the fields is to move the Notes field and turn it into a scrolling field:

1. **Choose the Field tool (▤) from the Tools menu.**
2. **Double-click the Notes field to open its Info dialog box.**

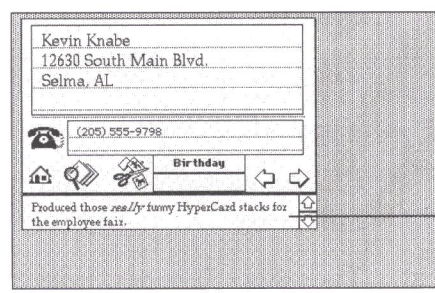


Double-click here to open the Notes field's Info dialog box.

3. **Click Scrolling and then click OK to change the field's style.**

   A scroll bar appears in the field.

4. **Move the Notes field and adjust its size:**



Change the field's size so it is just tall enough to show the two arrows of the scroll bar . . .

. . . then move it just below the white part of the card and make it the same width.

5. **Choose the Browse tool (☜).**
6. **Flip through the cards in the stack to see how your changes look.**

   Click the left and right arrow buttons to flip through your stack.

Finishing touches

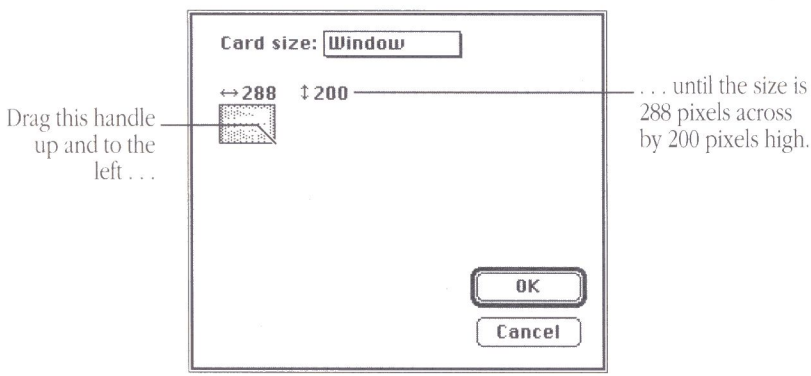
Now that you've moved the fields and buttons and made all the other changes, all that remains to be done is to make the stack smaller.

Getting ready: Make sure you're viewing the Tiny Addresses stack.

1. **Choose Stack Info from the Objects menu.**
2. **Click the Resize button.**

   The Resize dialog box opens.

3. **Adjust the size of the stack:**


Card size: Window
↔288 ↕200
Drag this handle up and to the left . . .
. . . until the size is 288 pixels across by 200 pixels high.
OK
Cancel

4. Click OK.

   The stack is resized.

If the size isn't right, you can repeat this exercise to readjust it.

This section describes several shortcuts. If you'd prefer to move on to the next exercises, start the next chapter.

- **In the Practice stack, hold down the Option and ⌘ keys and while they're still pressed, click any button.**

  HyperCard displays the button's script. Click the close box to close the script. If HyperCard asks you whether to save changes, be sure to click No.

- **Tear off the Tools menu and choose the Browse tool (☟). Hold down the ⌘ key and press Tab twice quickly. Then try holding down the ⌘ key and pressing Tab three times.**

  Pressing ⌘-Tab twice chooses the Button tool (⬭). Pressing it three times chooses the Field tool (▤).

- **Display the Message box. Type `c` and press Return. Repeat the experiment, first typing the letter `s` and then typing the letter `b`.**

  Typing `c` displays the Card Info dialog box, just as if you had chosen the Card Info command from the Objects menu. The `s` message displays the Stack Info dialog box, and the `b` message displays the Bkgnd Info dialog box.

Creating New Stacks

In this chapter you'll build one stack from start to finish and create two others as well. In the process you'll review many of the other techniques you've learned in this book.

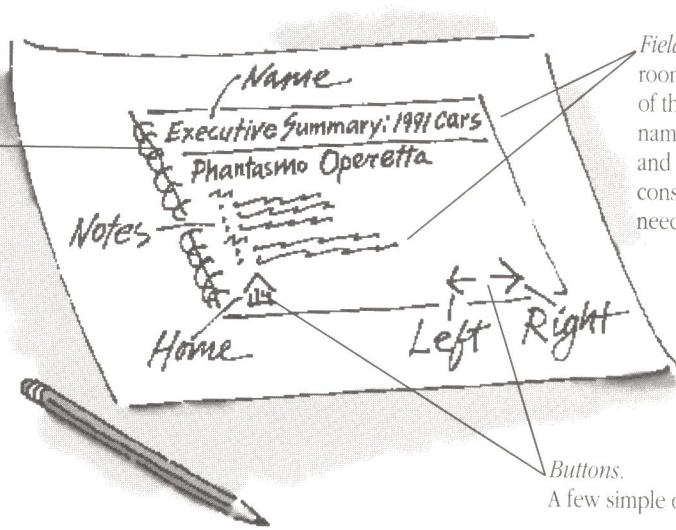
Starting from scratch

In this section you'll create a stack from scratch.

Designing the stack

The first step in creating a new stack is to design it. Start your plan by thinking about your audience and what the stack should do. For example, suppose your boss asks you to review several new vehicles for possible inclusion in the company fleet. You agree and, knowing her impatience with printed reports, decide to create your report as a HyperCard stack.

Your stack should be simple to use and easy to read. After thinking for a while, you sketch out this design:



Background art should look like a notebook to make the stack easier to understand

Fields. You need room for the title of the stack, the name of the car, and the pros and cons. You also need two labels.

Buttons. A few simple ones will do.

❖ *Note:* If you want to create professional-looking stacks, you should design them carefully. You may want to read Apple's *HyperCard Stack Design Guidelines,* published by Addison-Wesley. ❖

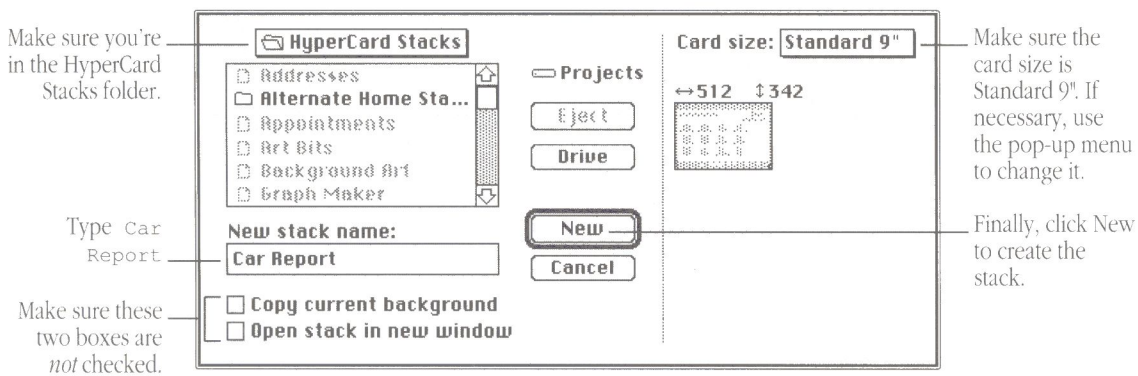
Creating an empty stack

The first step in implementing the design is to create a new stack, as described in this exercise.

Getting ready: If you've set your user level to Authoring or Scripting, start now with step 1. Otherwise, increase your user level as described in "The Preferences Card" in Chapter 4.

1. **Go Home.**
2. **Choose New Stack from the File menu.**

   The New Stack dialog box appears.
3. **Double-click the name "HyperCard Stacks" to open the folder.**
4. **Name the stack and choose your options as shown here:**



The new stack's window opens, absolutely blank.

Next you'll lay out the background. The background contains three elements: art, buttons, and fields.

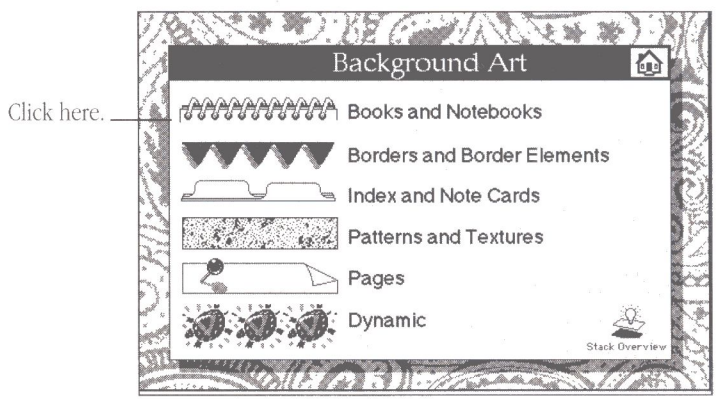
Copying the background art

The background art for this stack is supposed to look like a spiral notebook. You could use the Paint tools to draw your own; instead, this exercise will have you copy the art from the Background Art stack.

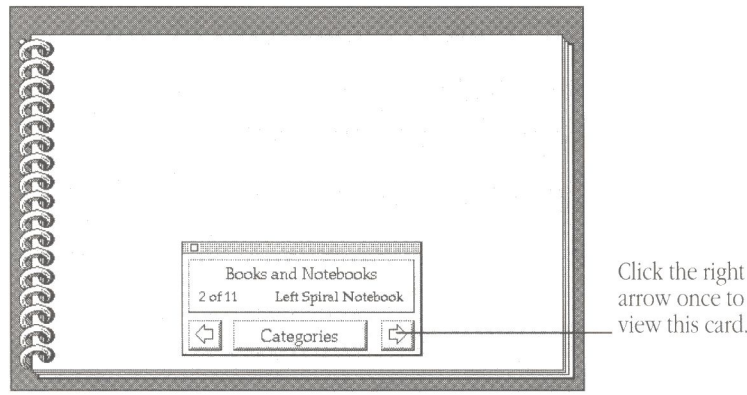
1. **Go to the Background Art stack.**

   Go Home, click the Stack Kit button at the bottom of the card, and then click the Background Art button:

2. **Click the "Books and Notebooks" category.**



3. **Click the right arrow of the palette once to see the second card.**



4. **Tear off the Tools menu.**

   Pull the menu down as if you were going to choose a command, but keep dragging past the bottom. Place the Tools palette wherever you like. (If you need more details, see "Tools of the Trade" in Chapter 6.)

5. **Double-click the Selection tool (⬚) in the Tools palette to select all the art.**

   A moving dashed line surrounds the card, indicating that the art is selected.

6. **Choose Copy Picture from the Edit menu**

7. **Return to your new stack using the Open Stack command.**

   Choose Open Stack from the File menu and double-click the name "Car Report" to open the stack you're working on.

8. **Choose Background from the Edit menu.**

   Confirm that you're working in the background by making sure the menu bar is striped.

9. **Choose Paste Picture from the Edit menu.**

   You've finished the background art.

Copying the background buttons

In this section you'll put the three buttons—Home, left arrow, and right arrow—in the background. You'll copy them from the Addresses stack.

The left arrow button

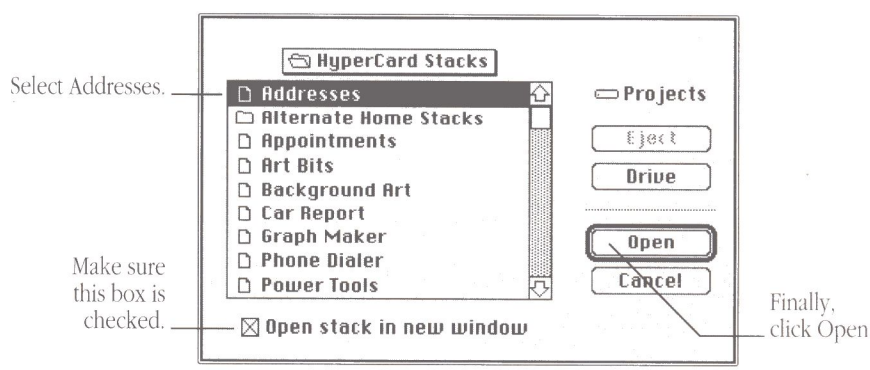
Start by opening the Addresses stack in a second window; then copy and paste the left arrow button by switching back and forth between the two windows.

Getting ready: Make sure you're still working in the background of your new Car Report stack. (The menu bar should be striped.)

1. **Choose the Open Stack command from the File menu.**
2. **Click the "Open stack in new window" check box to select it.**

   Checking this box indicates that you want HyperCard to open the stack in a new window, without closing the Car Report stack's window.

3. **Open the Addresses stack:**



You may not be able to see both of them, but you now have two windows open.

4. **Choose the Button tool (⬭) from the Tools menu.**
5. **Click the left arrow button once to select it.**

   A moving dashed line surrounds the selected button.

6. **Choose Copy Button from the Edit menu.**
7. **Choose Next Window from the bottom of the Go menu to activate the Car Report stack's window.**

   Alternatively, if part of the Car Report stack's window is visible, you can click it to make it active. In either case, the window for the Car Report stack comes to the front. (If you have windows open for any stack besides Addresses and Car Report, you should close them.)

   Each time you choose the Next Window command, HyperCard activates the window that's behind the window you're currently viewing. The shortcut for Next Window is ⌘-L.

8. **Choose Paste Button from the Edit menu.**

   The button appears. You'll move it into place in a later exercise.

The right arrow button

Continue by copying the right arrow button from the Addresses stack to the Car Report stack.

Getting ready: Make sure you're still using the Button tool (⬭) and working in the background.

1. **Press ⌘-L to go back to the Addresses window.**

   Remember, ⌘-L is the shortcut for the Next Window command.

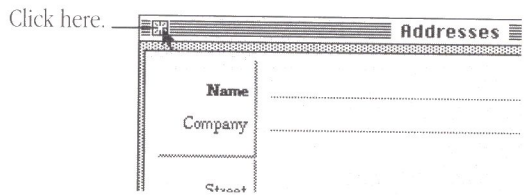
2. **Click the right arrow button once to select it.**
3. **Choose Copy Button from the Edit menu.**
4. **Press ⌘-L to return to the Car Report window.**
5. **Choose Paste Button from the Edit menu.**

The Home button

Finally, copy the Home button.

Getting ready: Make sure you're still using the Button tool (▭) and working in the background.

1. **Press ⌘-L to return to the Addresses window.**
2. **Click the Home button once to select it.**
3. **Choose Copy Button from the Edit menu.**
4. **Close the Addresses window by clicking its close box.**



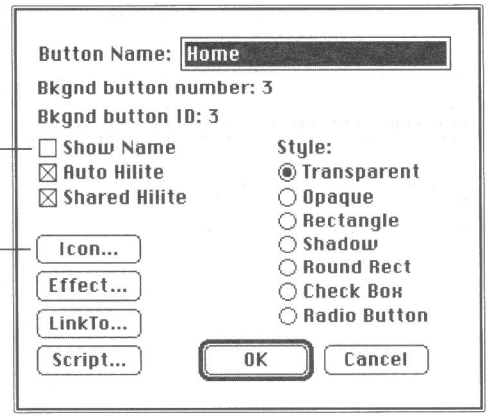
The Addresses window closes and the Car Report window becomes active.

5. **Choose Paste Button from the Edit menu.**

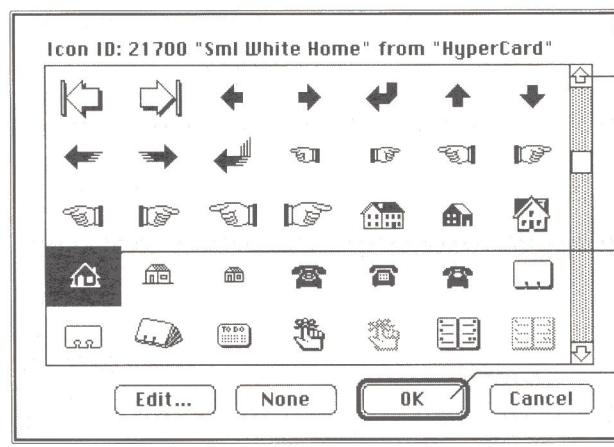
   The Home button appears, but to fit it into your design you'll have to hide its name and change its icon, as shown in the next three steps.

6. **Double-click the Home button to open its Info dialog box.**

7. Click Show Name, then click the Icon button.



8. Change the icon:


Icon ID: 21700 "Sml White Home" from "HyperCard"
Edit...
None
OK
Cancel
If necessary, use the scroll bars to find the small Home icon.
Click the icon to select it . . .
. . . then click OK.

Arranging the buttons

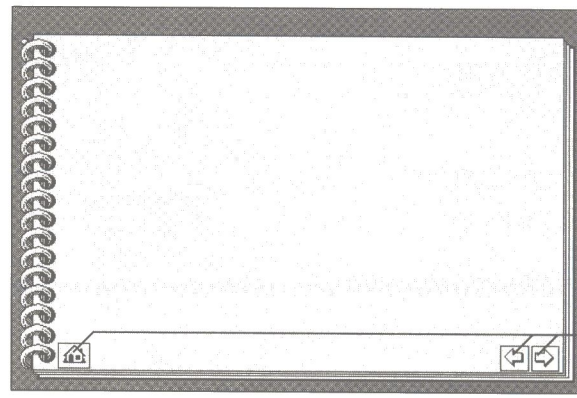
Now you need to move the buttons into position.

Getting ready: Make sure you're still viewing the Car Report stack and that you still have the Button tool (⬭) selected.

1. **Make the Home button smaller.**

   Drag its corner to make the button just a little bigger than the icon in its center.

2. **Move the buttons into position:**



Creating the background fields

In this section you'll create the six background fields for your new stack. Three will be shared text fields—a large one for the stack's title and two small ones for the labels "Pros" and "Cons." The other three fields are for the name of the car, the list of pros, and the list of cons.

The stack's title

In this exercise you'll create a large shared text field for the stack's title.

Getting ready: Make sure you're still viewing the Car Report stack and working in the background. (The menu bar should be striped.)

1. **Choose New Field from the Objects menu.**

   The new field appears in the middle of the window.

2. **Double-click the new field to opens its Info dialog box.**

3. **Click Transparent to set the style.**

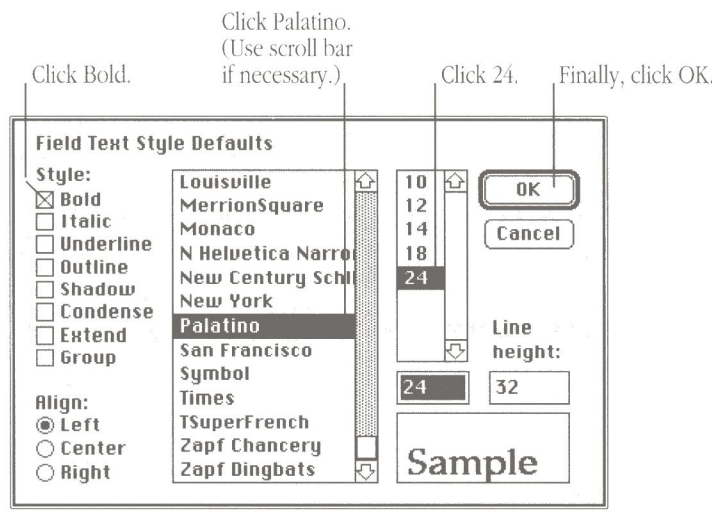
4. **Click the Shared Text check box to select it.**

   This option specifies that the field will have the same text on every card.

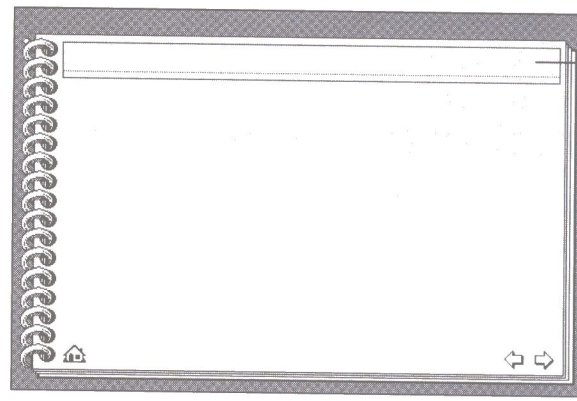
5. **Click the Font button.**

   The Text Style dialog box opens.

6. **Set the text style for the field as follows:**



7. **Resize the new field and move it into place:**



Remember, to change the size of the field, drag its corners; to move the field, drag it by its middle.

Text for the stack title

In this exercise, you'll fill in the text for the car title and draw a line below it.

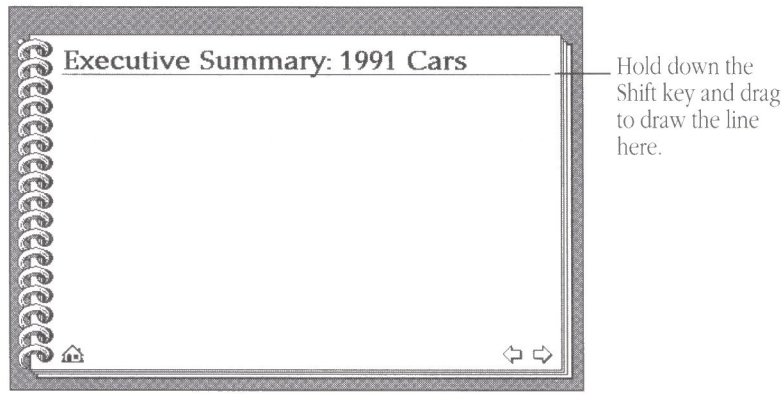
Getting ready: Make sure you're still viewing the Car Report stack and working in the background. (The menu bar should be striped.)

1. **Choose the Browse tool.**
2. **Press the Tab key once to find the field.**

   The insertion point blinks in the field.
3. **Type** `Executive Summary: 1991 Cars`
4. **Choose the Line tool (\) from the Tools menu.**

   When you choose the Line tool, the pointer changes to a crosshair.

5. **Hold down the Shift key and draw a line under the title:**



Holding down the Shift key while you drag makes it easier to draw a horizontal line.

The car's name

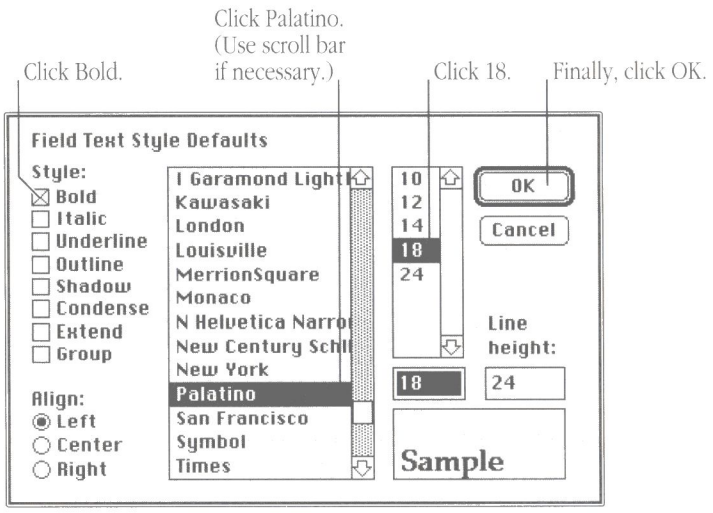
In this exercise you'll create the field for the car's name.

Getting ready: Make sure you're still viewing the Car Report stack and working in the background. (The menu bar should be striped.)

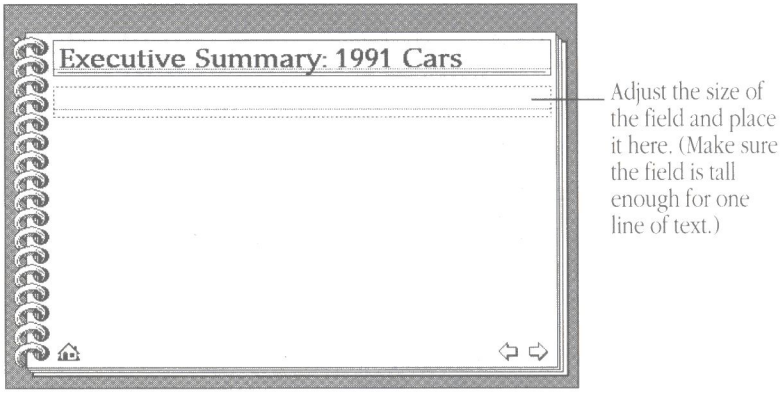
1. **Choose the Browse tool.**
2. **Choose New Field from the Objects menu.**

   The new field appears.
3. **Double-click the new field to open its Info dialog box.**
4. **Click Transparent to set the style.**
5. **Click Font.**

6. Set the text style for the field as follows:



7. Resize the new field and move it into place:


Executive Summary: 1991 Cars
Adjust the size of the field and place it here. (Make sure the field is tall enough for one line of text.)

The pros and cons

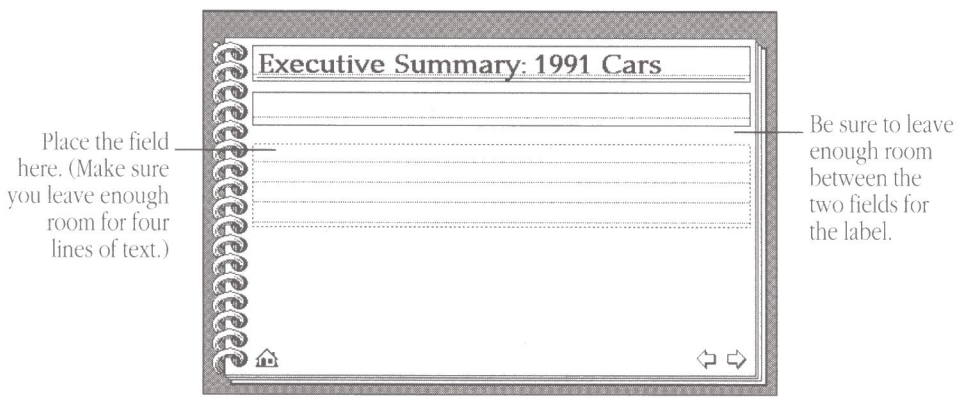
In this exercise you'll create the field for the list of pros and then duplicate it to create the field for the list of cons.

Getting ready: Make sure you're still viewing the Car Report stack and working in the background. (The menu bar should be striped.)

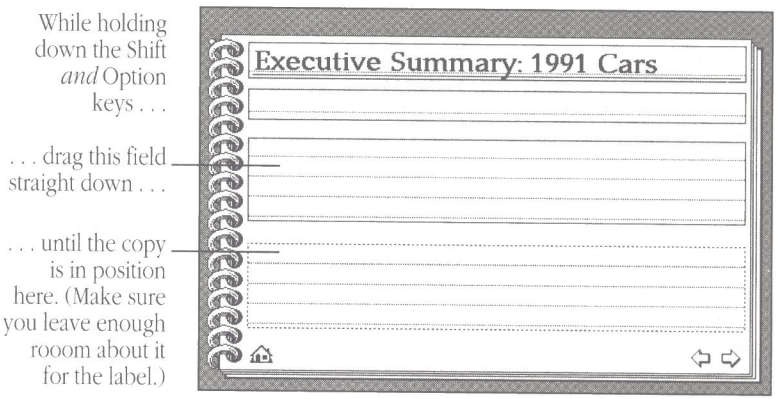
1. **Choose New Field from the Objects menu.**

   The new field appears.

2. **Double-click the new field to open its Info dialog box.**
3. **Click Transparent to set the style.**
4. **Click Font.**
5. **Set the font to 14-point Palatino and click OK.**
6. **Resize the new field and move it into place:**


Executive Summary: 1991 Cars
Place the field here. (Make sure you leave enough room for four lines of text.)
Be sure to leave enough room between the two fields for the label.

7. **Duplicate the field as shown here:**


While holding down the Shift *and* Option keys . . .
. . . drag this field straight down . . .
. . . until the copy is in position here. (Make sure you leave enough rooom about it for the label.)
Executive Summary: 1991 Cars

If you duplicate the field successfully but don't get in quite the right place, delete the new field and try again. You can delete a field by clicking it once and pressing the Delete or Backspace key.

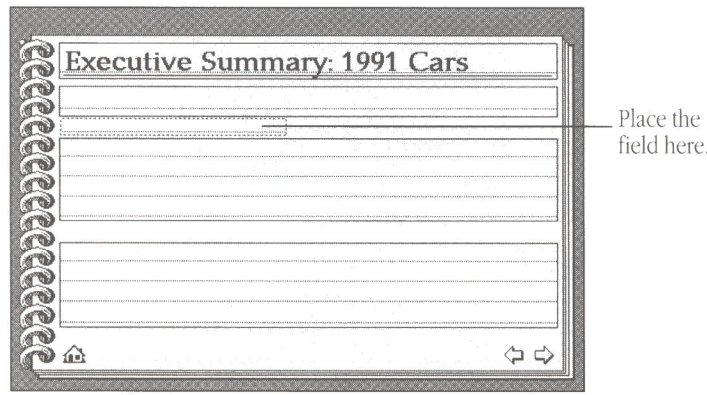
The two labels

In this exercise you'll create the field for the Pros label and duplicate it to create the field for the Cons label. In the next exercise, you'll enter the text.

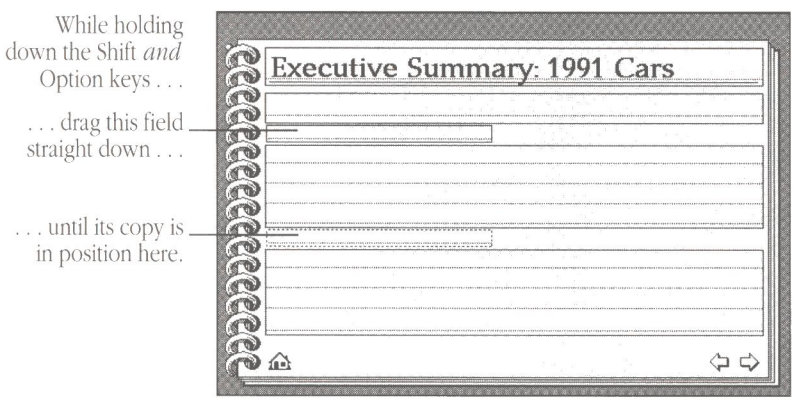
Getting ready: Make sure you're still viewing the Car Report stack and working in the background. (The menu bar should be striped.)

1. **Choose New Field from the Objects menu.**
2. **Double-click the new field to open its Info dialog box.**
3. **Click Transparent to set the style.**

4. Click the Shared Text check box to select it.
5. Click Font.
6. Set the font to Palatino, change the size to 10, make the style bold, and click OK.
7. Position the new field like this:



8. Duplicate the field as shown here:


While holding down the Shift *and* Option keys . . .
. . . drag this field straight down . . .
. . . until its copy is in position here.
Executive Summary: 1991 Cars

Text for the labels

Getting ready: Make sure you're still viewing the Car Report stack and working in the background. (The menu bar should be striped.)

1. **Choose the Browse tool** (☝).

   You need the Browse tool to enter text in fields.

2. **Press the Tab key twice and type** `Pros:`

3. **Press the Tab key again and type** `Cons:`

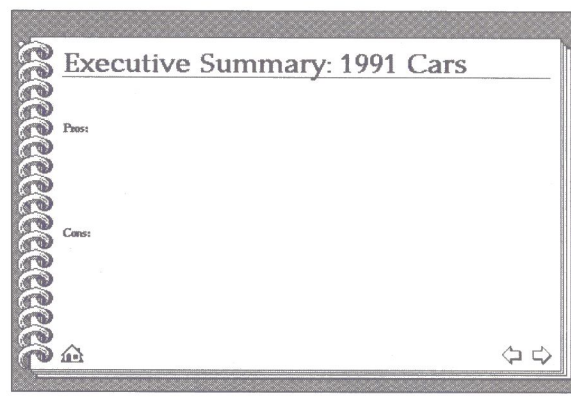
4. **Choose Background from the Edit menu to view your work.**

   The stripes disappear from the menu bar.

Checking your work

You've completed the background and should be ready to start using the stack. Before going on, do a quick check to make sure you didn't make any mistakes.

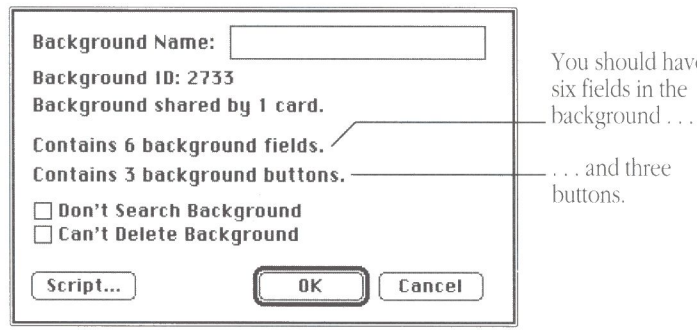
1. **Does your card look like this?**



If yours doesn't look quite right, review the sections on background art, background buttons, and background fields in this chapter.

2. **Choose Bkgnd Info from the Objects menu.**

Your Info dialog box should look similar to this:



The six fields are for (1) the title of the stack, (2) the name of the car, (3) the label "Pros:", (4) the list of pros, (5) the label "Cons:", and (6) the list of cons. The three buttons are left arrow, right arrow, and Home.

If you have too few buttons or fields on the background, you may have either skipped a step or, more likely, accidentally created them on the card instead of the background. (If you choose the Card Info command from the Objects menu and the dialog box lists any buttons or fields, that's probably what you did.) See "Moving the Button from the Card to the Background" in Chapter 6 for a reminder about how to move objects from the card to the background.

If you have too many fields, you probably duplicated an extra copy. Choose the Field tool and click the extra field to select it. Then press the Delete or Backspace key to delete it.

3. **Click Cancel to close the Bkgnd Info dialog box.**

Using the stack

You use the Car Report stack just as you would use any other. In this exercise you'll enter text for the cards.

1. **Choose the Browse tool (☝).**
2. **Press Tab to start typing in the first field.**
3. **Type the name of the car:** `Phantasmo Operetta`
4. **Press Tab to move to the next field and type this text:**

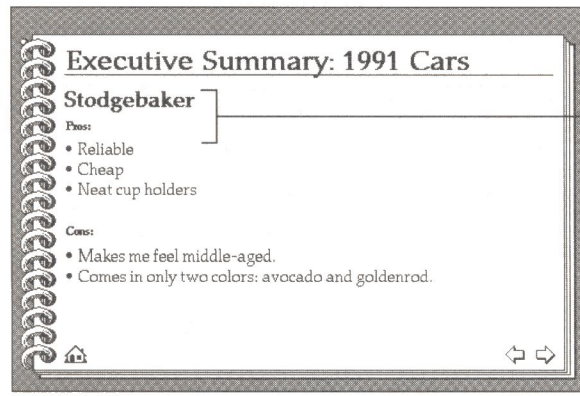
You can make this character by pressing Option-8.

Pros:
• Sleek aerodynamic design
• Rotating ten-way velour seats
• Can do up to 110 m.p.h.

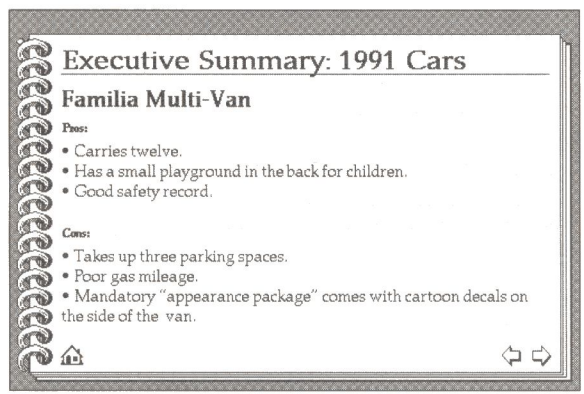
5. **Press Tab again to move to the bottom field and type this text:**

Cons:
• People who drive these get more speeding tickets.
• Repairs are phenomenally expensive.

6. Choose New Card from the Edit menu and fill in the fields like this:



7. Create a third card and enter this text:


Executive Summary: 1991 Cars
Familia Multi-Van
Pros:
• Carries twelve.
• Has a small playground in the back for children.
• Good safety record.
Cons:
• Takes up three parking spaces.
• Poor gas mileage.
• Mandatory "appearance package" comes with cartoon decals on the side of the van.

8. Click the arrow buttons to test them.

Starting with an existing background

You created the Car Report stack from scratch with an absolutely blank background. It's useful to know how to build a stack from scratch, but it's not always necessary to do so. For many stacks, you may be able to take advantage of someone else's work.

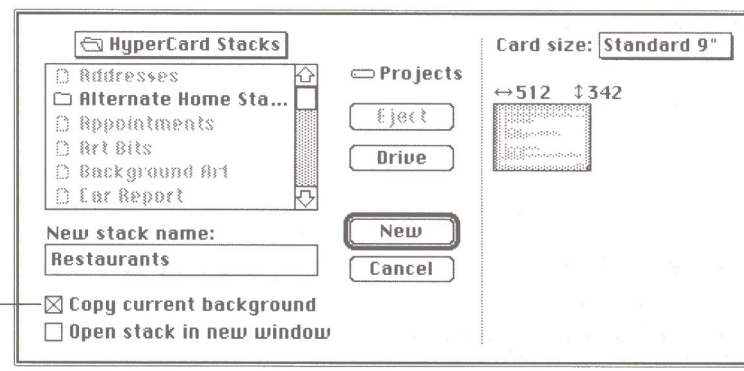
For example, suppose your boss is so impressed with the Car Report stack that she asks you to create a database of restaurants in the area where she can entertain clients. Instead of starting from scratch, you can use exactly the same background, as illustrated by the exercises in this section.

Creating the stack

To create the stack, you'll copy the Car Report's background using the New Stack command.

Getting ready: Make sure you're viewing your completed Car Report stack.

1. **Choose New Stack from the File menu.**
2. **Click the "Copy current background" check box to select it.**



Click here and make sure the box is checked.

3. **Type** `Restaurants`
4. **Click New.**

Changing the shared text fields

In this exercise you'll change the text for the stack's title and the two labels.

Getting ready: Make sure you're still viewing the new Restaurants stack and that you're using the Browse tool (✋). (If you can't see the title bar to check the name of the stack, choose Stack Info from the Objects menu to see it.)

1. **Choose Background from the Edit menu.**
2. **Press the Tab key.**

   The stack's title is highlighted.
3. **Type** `Local Restaurants`

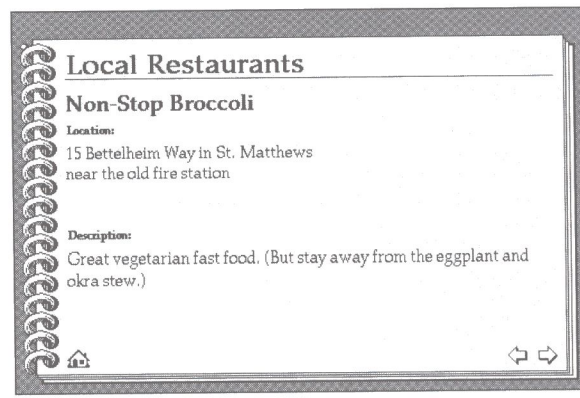
   The old text disappears as soon as you start to type.
4. **Press the Tab key.**
5. **Type** `Location:`
6. **Press the Tab key.**
7. **Type** `Description:`
8. **Choose Background from the Edit menu again.**

Using the stack

Fill out a card as described in this exercise:

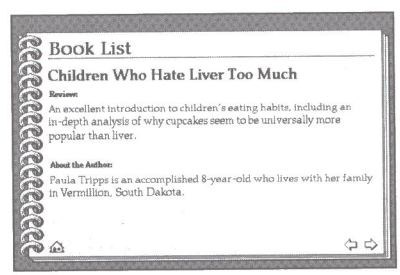
1. **Press Tab to start typing in the first field.**
2. **Type the name of the restaurant:** `Non-Stop Broccoli`

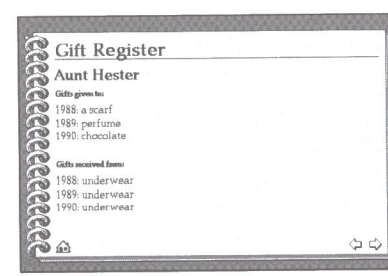
3. Press Tab to move to each of the next two fields and fill in the rest of the card like this:

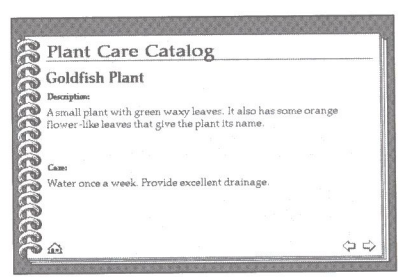

Local Restaurants
Non-Stop Broccoli
Location:
15 Bettelheim Way in St. Matthews
near the old fire station
Description:
Great vegetarian fast food. (But stay away from the eggplant and okra stew.)

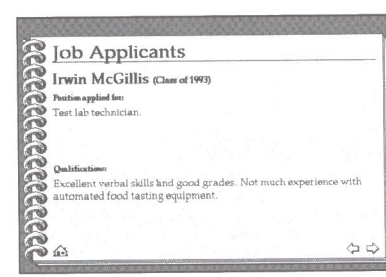
Other examples

You can use the same background for many other stacks. Here are some examples:


Book List
Children Who Hate Liver Too Much
Review:
An excellent introduction to children's eating habits, including an in-depth analysis of why cupcakes seem to be universally more popular than liver.
About the Author:
Paula Tripps is an accomplished 8-year-old who lives with her family in Vermillion, South Dakota.




Plant Care Catalog
Goldfish Plant
Description:
A small plant with green waxy leaves. It also has some orange flower-like leaves that give the plant its name.
Care:
Water once a week. Provide excellent drainage.


Job Applicants
Irwin McGillis (Class of 1993)
Position applied for:
Test lab technician.
Qualifications:
Excellent verbal skills and good grades. Not much experience with automated food tasting equipment.

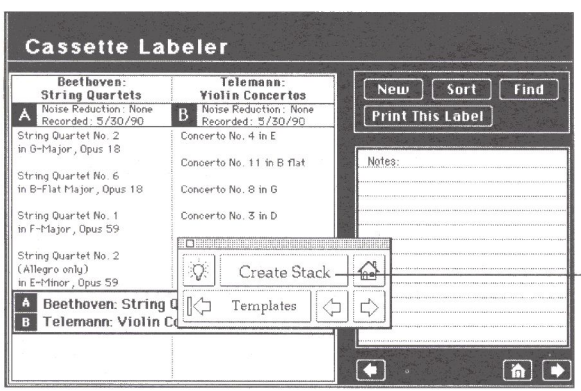
Starting from stack templates

In addition to all the sample stacks you can see on your Home cards, HyperCard comes with about two dozen stack templates. In this exercise you'll learn how to create a stack from one of these templates.

1. **Go Home.**
2. **Click the Stack Kit button.**

   Go to the Stack Kit Home card by clicking its button at the bottom of the card.
3. **Click the Stack Templates button.**

4. **Click Cassette Labeler to go to its template.**
5. **Click Create Stack on the palette.**


Cassette Labeler
Beethoven: String Quartets
Telemann: Violin Concertos
A Noise Reduction: None Recorded: 5/30/90
B Noise Reduction: None Recorded: 5/30/90
String Quartet No. 2 in G-Major, Opus 18
String Quartet No. 6 in B-Flat Major, Opus 18
String Quartet No. 1 in F-Major, Opus 59
String Quartet No. 2 (Allegro only) in E-Minor, Opus 59
Concerto No. 4 in E
Concerto No. 11 in B flat
Concerto No. 8 in G
Concerto No. 3 in D
New
Sort
Find
Print This Label
Notes:
Create Stack
Templates
Click here to create the stack.

6. **Click Save to accept the name.**

   HyperCard creates the new stack from the template and opens it to let you use it.

7. **Play with the stack.**

   This stack will allow you to type labels for cassettes. When you print them on an Apple LaserWriter, they will be just the right size to fit in a cassette case. You can use the stack itself as a music database.

Finishing up

Congratulations. You've now completed all the exercises in this book. If you like, you can quit HyperCard and delete some of the practice files you've created; then go to the Home card and delete any buttons you no longer want. You may also want to go to the Preferences card in the Home stack and change your user level.

There's one more "Experts Only" section on the next page if you want to learn some more shortcuts. The last chapter describes a few more ways to enhance your stacks.

When you're finished with this book, you can use the *HyperCard Reference* or the HyperCard Help stack to look up information about specific tasks.

Experts only This section describes several advanced techniques. If you prefer to skip them for now, feel free to move on to the next chapter.

- **Go to the Car Report stack and choose the Field tool (▤). Double-click one of the two big fields, click Show Lines, and click OK. Choose the Browse tool (☝) to see the effect.**

  The field has lines, like ruled paper. The lines can make it easier to see where to type. (You can turn off the lines by repeating the process.)

- **Once again, choose the Field tool (▤) inside the Car Report stack. While holding down the ⌘ key, draw a rectangle by dragging the mouse diagonally.**

  You've created a field the same size as the rectangle you drew. This alternative to the New Field command allows you to specify the size and location of the field at the same time you create it. (The same technique works with the Button tool.)

  Before going on, you should delete the new field by selecting it and pressing the Delete or Backspace key. Choose the Browse tool (☝) when you're finished

- **While still in the Car Report stack, choose the Protect Stack command from the File menu. Then click Can't Modify Stack and click OK.**

  There's now a padlock (🔒) at the right side of the menu bar. If you try to change the stack in any way, you'll get a message telling you the stack is protected.

  Before going on, you should choose Protect Stack again and deselect Can't Modify Stack to turn off the protection. By the way, be careful if you use the password feature of the Protect command. If you forget the password, there's no way to turn off the protection.

Onward

You now know enough to look through other people's stacks and create your own. Where do you go from here?

This chapter tells you where you can get more readymade stacks. It also describes how you can begin using art, sounds, and HyperTalk scripts to enhance stacks you create yourself.

Where to get stacks

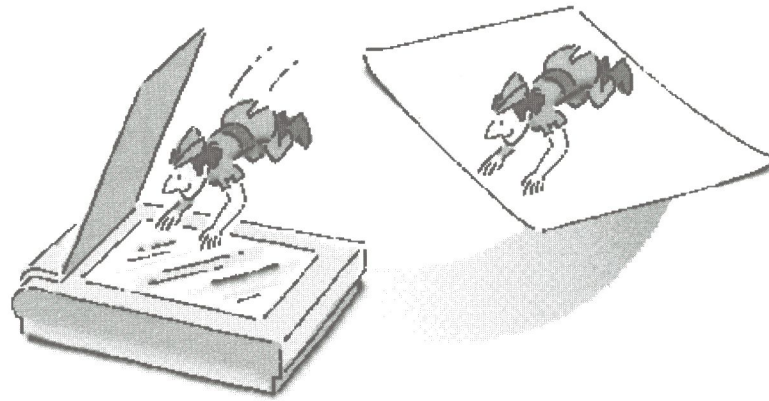
HyperCard stacks are available from many sources. They range from simple but useful stacks by beginners like yourself to sophisticated commercial products that come with their own manuals. You may find some of these stacks useful in themselves; others may give you ideas for your own stacks. To find out what's available, start with these sources:

- Your authorized Apple dealer and your favorite software store.
- Your local Macintosh user group. A user group can be a good place to find free (or inexpensive) stacks and to meet HyperCard enthusiasts who are willing to share and discuss stacks they have made. See the Preface of the *HyperCard Reference* for more information about user groups, or call Apple at 1-800-538-9696 to find a user group near you.
- On-line bulletin boards run by user groups or electronic information services. If you have a modem, you can *download* stacks from these electronic sources just by paying their service charge and any telephone charge that may apply. (Some stacks may also be *shareware*, meaning if you like the stack and continue to use it, you are honor-bound to send the author a small payment.)

Art for your stacks

As an easy alternative to creating art for your stacks from scratch, you may want to take advantage of a scanner or collections of clip art.

Scanners work much like photocopying machines, except that instead of producing an image on a piece of paper, they produce an image on your Macintosh that you can paste into a stack. (Be careful of copyright infringement, though. Copyright laws apply to material copied electronically as well as to material that's photocopied.)



Another alternative is to purchase *clip art*—electronic collections of drawings that you can copy and use for your own purposes. You can get clip art from any of the sources for HyperCard stacks listed earlier in this chapter.

Sounds for your stacks

One of the most interesting ways to enhance a HyperCard stack is to add sound. Imagine a vocabulary stack, for example, that pronounced words. One way to incorporate sounds into your stacks is to use a special recording device that can work with microphones. As with visual recordings, copyright laws apply to electronic recordings of sounds.

Another way you can add sounds to your stack is to learn the HyperTalk commands that play sounds.

Scripting

The most powerful way to enhance your stacks is to learn HyperTalk, the programming language that's built into HyperCard. With HyperTalk, you can write your own instructions, called *scripts*, for HyperCard to carry out. Writing scripts is called *scripting*.

If you'd like to learn more about scripting with HyperTalk, you should read the *HyperTalk Beginner's Guide*.

Replacing an Earlier Version of HyperCard

To install HyperCard 2.0 (or any later version), follow the instructions in Chapter 2 of this book. If you're installing the new HyperCard (or if you've already installed it) on a hard disk that also contains an earlier version of HyperCard, you have several options for disposing of the older HyperCard and the stacks that accompany it. This appendix describes the options you have and the considerations you need to be aware of before you begin using the new HyperCard.

△ **Important:** Before you decide what to do with the older version of HyperCard, read all the information in this appendix. △

What to do with an earlier version of HyperCard

If you plan to use the new HyperCard on a regular basis, it's a good idea to delete any earlier version of HyperCard you have on your hard disk. Otherwise, when you open stacks by double-clicking them, you may find that the earlier version of HyperCard launches when you want to use the new one.

You have the option of keeping your older version of HyperCard on your hard disk. If you do this, however, opening stacks will take a little longer and require extra steps. You'll have to launch the specific version of HyperCard you want by double-clicking it and then open each stack by clicking buttons or by choosing Open Stack from the File menu. (If you decide to keep your older version of HyperCard, be sure to keep it in a separate folder from the new version.)

The new HyperCard does everything that the earlier versions can do and more—and you can use your old stacks with it. If you decide to delete the older version of HyperCard from your hard disk, you can keep a backup copy of it, if you like. To back up HyperCard, insert a floppy disk into your disk drive; then drag the HyperCard icon to the floppy disk icon on your desktop. (If you need detailed instructions on backing up software, see the manuals that came with your Macintosh.)

To delete an earlier version of HyperCard, drag it to the Trash.

△ **Important:** If you've already used the HyperCard Installer Script to install the new HyperCard, be careful not to delete the new HyperCard by mistake. (It's inside the folder named New HyperCard Folder.) If you delete the new HyperCard by mistake, you'll have to install it again. △

What to do with old Help stacks

If your hard disk contains the Help stacks that came with an earlier version of HyperCard, do the same thing with these Help stacks that you do with your older version of HyperCard. That is, either make backup copies of them and delete them from your hard disk, or keep them on your hard disk in a separate folder from the new HyperCard files.

The Help stacks that came with the earlier versions of HyperCard are named Help, Help Index, and Help Samples. These Help stacks won't help you with the new HyperCard—it comes with its own Help stacks.

To back up the old Help stacks, insert a floppy disk into your disk drive; then drag the Help stack icons to the floppy disk icon on your desktop. (If you need detailed instructions on backing up software, see the books that came with your Macintosh.)

To delete the old Help stacks, drag them to the Trash.

△ **Important:** If you've already used the Installer to install the new HyperCard, be careful not to delete the new Help stacks by mistake. (They're in a folder named HyperCard Help, which is inside the New HyperCard Folder.) If you delete the new Help stacks by mistake, you'll have to install them again. △

What to do with your old Home stack

The new HyperCard comes with a Home stack that contains buttons for all the other standard HyperCard stacks. The new Home stack also has extra cards to which you can add buttons for your own stacks, documents, and applications. ("Customizing Your Home Stack" in Chapter 2 of the *HyperCard Reference* explains how to add buttons to your new Home stack.)

If your hard disk contains an old Home stack, you can do any of the following:

- Make a backup copy of your old Home stack and delete it from your hard disk.
- Keep your old Home stack on your hard disk in a separate folder from the the new HyperCard stacks.
- If you've customized your old Home stack by adding buttons to it, you can copy these buttons from your old Home stack to the new one. (For instructions, see "Copying a Button" in Chapter 4 of the *HyperCard Reference.*) In the new HyperCard, you can open both Home stacks at the same time and copy and paste buttons between them.

What to do with other old stacks

The new HyperCard comes with a collection of useful stacks—some of which are new and improved versions of the stacks that came with earlier versions of HyperCard. You can also open and use any of your old stacks in the new HyperCard.

Two of the stacks that come with the new HyperCard include a function for transferring text from your old stacks. The new Addresses stack can import text from the old Address stack that came with the earlier versions of HyperCard, and the new Appointments stack can import text from the old Datebook stack. The text transfer feature is easy to use. You might want to take advantage of it, if you want to use the new Addresses and Appointments stacks with the information from your old stacks. (The instructions for transferring text into the new Addresses and Appointments stacks are included in the stacks themselves.)

If you want to use your old stacks with the new HyperCard, you can leave them where they are on your hard disk (that is, in the same folder you have them in now). The first time you try to open any of the old stacks from within the new HyperCard, you'll have to tell HyperCard where the stack is. After that, HyperCard will know where to find it.

Before you can make changes to an old stack from within the new HyperCard, you must convert the stack to the new file format by choosing Convert Stack from the File menu. (See "Opening a Stack Built in an Earlier Version of HyperCard" in Chapter 1 of the *HyperCard Reference* for details on converting a stack.)

authoring Creating or modifying buttons, links, fields, cards, backgrounds, and stacks using the Button tool, the Field tool, and commands in the Objects menu. Also refers to the **user level** that allows you to use the Button Tool, the Field tool, and the Objects menu.

background A template shared by a number of cards. Each card with the same background has the same picture, fields, and buttons in its **background layer.**

background layer The layer behind the **card layer,** containing all the elements of the **background.** You see the elements of both layers when you look at a **card,** as if the card layer were a transparent layer in front of the background layer.

browse To explore HyperCard stacks by clicking buttons and using the Go menu.

Browse tool (✋) The tool you use to click buttons and to position the insertion point in fields.

button A rectangular "hot spot" on a **card** or **background** that responds when you click it according to the instructions in its **script.** For example, clicking a right arrow button with the Browse tool can take you to the next card.

Button tool (⬭) The tool you use to create, change, and select buttons.

card A rectangular area that can hold buttons, fields, and graphics. All cards in a stack are the same size. Each card is a composite of two layers—a foreground layer, called the **card layer,** and a **background layer.** You see the elements of both layers when you look at a card, as if the card layer were a transparent layer in front of the background layer. Each layer can contain its own buttons, fields, and graphics.

card layer The layer in front of the **background layer.** You see the elements of both layers when you look at a **card,** as if the card layer were a transparent layer in front of the background layer.

clip art Electronic pictures that you can copy from one stack (or any other document) and paste into another stack. The term comes from the use of scissors to clip pictures on paper. Several of the stacks that come with HyperCard include clip art, and you can buy other clip art stacks that contain many different types of graphics.

Clipboard The holding area in the computer's memory for what you last cut or copied.

command-key (⌘-key) equivalent The combination of the ⌘ key and another key on the keyboard that you can press instead of choosing a command from a menu.

download To transfer information from a distant computer to your own computer; to transfer files (such as HyperCard stacks) over telephone lines from a distant computer to your own computer with the aid of a modem.

field A rectangular area in which you type field text (as opposed to Paint text). Fields may exist in either the **card layer** or the **background layer.**

field text Text that appears in a field created with the Field tool or the New Field command. Field text can be edited and searched, while **Paint text** cannot.

Field tool (▤) The tool you use to create, change, and select fields.

Home cards The first five cards in the standard Home stack, designed to hold buttons that take you to stacks, applications, and documents. Choose Home from the Go menu (or press ⌘-H) to get to the card in the standard Home stack that you've seen most recently.

HyperTalk HyperCard's built-in script language for HyperCard users.

I-beam pointer The pointer used to enter and edit text.

insertion point The location in a field where text will be added or deleted, represented by a blinking vertical bar. You can position the insertion point in a field by moving the **I-beam pointer** over the location you want and clicking.

link A short script, usually in a button, that allows you to move immediately to a specific card in a stack, to an application, or to a document. For example, clicking a button that contains a link to your Addresses stack takes you immediately to the first card of that stack.

message A HyperTalk instruction sent to HyperCard from a **script** or the **Message box.** Examples of HyperTalk messages are `help`, `go home`, and `the date`.

Message box A special window in which you can type messages and in which HyperCard can type replies. To open or close the Message box, choose Message from the Go menu.

MultiFinder A multitasking operating system for Macintosh computers that makes it possible to have several applications open at the same time, so that you can perform one task while the computer performs another. For example, MultiFinder allows you to work on a HyperCard stack while the computer prints out a document from a word-processing application.

Paint text Text you type using the Paint Text tool. Paint text can appear anywhere, while **field text** must appear in a field created with the Field tool. When you finalize Paint text by clicking, it becomes part of a card or background picture and cannot be edited except by erasing it and starting over. Unlike field text, Paint text cannot be searched.

Paint tools Any of the HyperCard tools you use to create graphics. The Paint tools are all the tools below the top row in the Tools menu.

palette A small window that displays icons or patterns you can select by clicking. You can see two of HyperCard's palettes, the Tools palette and the Patterns palette, simply by "tearing off" their respective menus. To see the Navigator palette, type `palette "navigator"` in the Message box. See also **tear-off menu.**

picture Any graphic or part of a graphic, created with a Paint tool or imported from an external file, that is part of a card or background.

pixel Short for "picture element"; a single dot on the screen.

point In printing, the unit of measurement of the height of a text character; one point is about 1/72 of an inch. When you select a font, you can also select a point size, such as 10-point, 12-point, and so on.

Preferences card The last card in the Home stack, where you can set your **user level** and select or deselect the Blind Typing, Power Keys, and Arrow Keys in Text options.

Recent A special dialog box that holds miniature representations of the last 42 unique cards viewed. Choose Recent from the Go menu to get the dialog box.

scanner Any graphic input device that converts printed matter into bit (digital) data.

script A collection of instructions written in HyperTalk, often associated with a **button.** You use the **script editor** to add to and revise a script.

script editor A large window in which you can type and edit a **script.** You can use the Edit menu, the Script menu, and keyboard commands to edit text in the script editor.

scripting The act of writing **scripts;** writing programs in HyperTalk. Also refers to the **user level** that allows you to look at and change objects' scripts.

shared text Field text that appears on every card in a background. Shared text can be edited only from the **background layer.** Text in shared text fields cannot be searched.

shareware Software you can copy and try before sending payment to the author.

stack A HyperCard document. Every stack consists of one or more **cards.**

tear-off menu A menu that you can remove from the menu bar by dragging the pointer beyond the menu's edge. HyperCard has two menus that can be torn off the Tools menu and the Patterns menu. When torn off, these menus are referred to as **palettes.**

Tools palette The palette that you can "tear off" the Tools menu.

user level A HyperCard setting that determines which of HyperCard's capabilities are available. You can select the user level on the **Preferences card** in the Home stack. Each user level makes all the options from the lower levels available, and also gives you additional capabilities. The five user levels are Browsing, Typing, Painting, Authoring, and Scripting.

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The Apple Publishing System

This Apple™ manual was written, edited, and composed on a desktop publishing system using Apple Macintosh™ computers and Microsoft Word. Proof pages were created on Apple LaserWriter® printers. Final pages were produced in QuarkXPress and output directly to film on a Linotronic imagesetters. Line art was created using Adobe Illustrator 88. Screens were created using MacPaint®.

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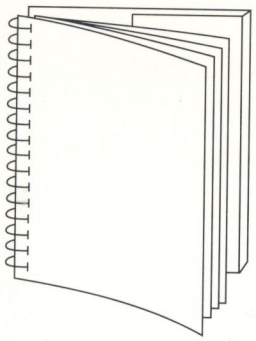

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